THIS WEEK'S National Petroleum NEWS

Coming Meetings

1932

American Chemical Society, Denver, Col., Aug. 22 to 26.

National Air Races, Cleveland, Aug. 27-Sept. 5.

Society of Automotive Engineers, Cleveland, O., Aug. 30, 31.

National Petroleum Association, annual meeting, Hotel Traymore, Atlantic City, N. J., Sept. 14, 15, 16.

Ohio Petroleum Marketers Association, Deshler-Wallick Hotel, Columbus, Sept. 21, 22.

North American Gasoline Tax Conference, Philadelphia, Sept. 21, 22, 23.

American Institute of Mining and Metallurgical Engineers, Petroleum Division, Conoco Club, Ponca City, Okla., Sept. 30, Oct. 1.

National Safety Council, Washington, D. C., Oct. 3 to 7.

Society of Automotive Engineers, Transportation Meeting, Toronto, Oct. 4, 5, 6.

American Gas Association, Atlantic City, N. J., Oct. 10 to 14.

Kentucky Petroleum Marketers Association, Louisville, Oct. 11, 12.

Four States Convention, Hotel President, Kansas City, Oct. 25, 26, 27.

California Natural Gasoline Association, Los Angeles, Nov. 10.

American Petroleum Institute, annual meeting, Houston, Tex., Nov. 15, 16, 17.

Rocky Mountain Oil and Gas Association, Rainbow Hotel, Great Falls, Mont., December (dates not set).

1933

Ohio Petroleum Marketers Association, Deshler-Wallick Hotel, Columbus, O., Feb. 15, 16, 17.

National Petroleum News

Vol. 24 No. 34

Published by
The National Petroleum Publishing Co.
1213 W. Third St., Cleveland, O.
Tel., CHerry 7672

Branch Offices:

TULSA,
904 World Bldg., Tel. 3-7132.

NEW YORK,
342 Madison Ave., Tel. Vanderbilt 3-3950 and 3-3951.

HOUSTON,
2420 Gulf Bldg., Tel. Fairfax 6286.

CHICAGO,
35 E. Wacker Drive, Tel. State 4141.

Subscription rate $3.50 per year, U. S. and Mexico; Canada $6 (including duty); $5 Foreign countries. Current copies 10 cents; for back issues more than two months old 25 cents per copy.

All contents copyrighted, 1931. Trade Mark Registered U. S. Patent Office.

Member Audit Bureau of Circulations

General

Burning Oils Enter Season with Smaller Stocks, Higher Prices Than in 1931 11
Transmission Lubricants Held Taxable in Treasury Department Ruling..... 14
Discounts to Buyers of 100 Gallons a Month Given by S. O. Indiana 15
Four Suppliers Strip Dealer Station They Find Buying Bootleg "Gas" 16
S. O. Indiana Makes Offer for Refinery and Pipeline of S. O. Kansas..... 17
Financial Statements Indicate Oil Industry Has Turned Corner 19
Orders Prorating Production at Conroe Withdrawn 20
Demand More Aggressive Oil Theft Prosecution in East Texas 21
Late Production News 22
Machinery Robbing, an Emergency Practice, Will Prove Costly Later On.... 25
Episode in Life of T. N. Barnsdall in Owen Young Biography 26
A. P. I. Report of Refinery Operations Week Ended Aug. 20 49
Independents Cutting 2 Cents Under Third Grade Gasoline Schedule..... 54

Engineering

Theory and Practice of Vapor Rectification Type Vapor Recovery Plants—*by Paul M. Raigorodsky and Norman K. Rector* 29
Pure Oil Co. Completes New Refinery to Operate on Michigan Crude—*by H. H. Dromberger* 47

Merchandising

Six Outdoor Display Cabinets at One Station 43
Ohio Oil Co. Builds Attractive Unit-Type Portable Service Station 44
Marketer Identifies His Merchandise with "Certified Products" Seal..... 46

Markets

Chicago; Gasoline Easier; Burning Oils Tight 53
Mid-Continent; Burning Oils Higher; Gasoline Prices Down 55
Refinery Price Tables 56, 58. 59
California; Inquiry More Active for Case Lots 62
Pennsylvania; Lube Prices Lower 63
Eastern; Gasoline Prices Down 0.5 to 0.75 Cent 64
Wax; Prices Tend Upward 64
Complete Seaboard Prices 66
Tank Wagon Price Tables 68, 69
Aviation Gasoline Prices 69
Crude Oil Prices; All Fields 71, 73

Departments

The Editors' Viewpoint 13
The Mid-Continent Skyline 27
Oil Trademarks for Copyright..... 56
New Refining Patents 60
On the Lazy Bench 65
Oil Company Finance 74, 76, 77, 78
New Patents 79

PROFITS AHEAD

THE weather is fine now—but just ahead is the fall and winter season and that means profits for the service station equipped with merchandise and a merchandising plan for participating in the automobile "Winter Conditioning" market.

Next week NATIONAL PETROLEUM NEWS will publish the first article on this market, suggesting merchandise and service applicable to this market, and some merchandising ideas. In October more articles will be published on how the marketer can profit through selling "Winter Conditioning" merchandise and service.

OIL COMPANY HEADQUARTERS

•

Standard Oil Company of California

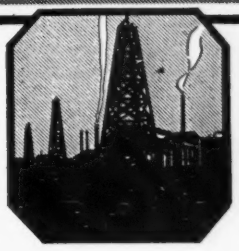
•

STANDARD Oil Co. of California occupies all except five floors of this 22-story office building at 225 Bush street, San Francisco. In design the building is an adaptation of the architecture of medieval Florence, particularly in the massive cornice suggestive of the battlements of a Florentine castle.

On the ground floor the Standard maintains an elaborate exhibit of models of equipment used in the California oil industry, products sold by the company and processes it employs. Specimens of the remains of prehistoric animals dug up during company operations are on display. A large number of photographs illustrating the company's activities give the visitor a quick survey of the intricacies of the industry.

NATIONAL PETROLEUM NEWS

Published at
1213 W. Third St.
Cleveland



Branch Offices
Tulsa, New York, Houston, Chicago

Vol. 24 **CLEVELAND, AUGUST 24, 1932** **No. 34**

Burning Oils Enter Season with Smaller Stocks, Higher Prices Than in 1931

TULSA, Aug. 20

BURNING oils are entering their season with stocks considerably lower and prices with one exception 0.25 to 1.25 cent higher than a year ago. The light fuel oils, or furnace oils, and kerosine are in far better position to retain present price levels or even to increase them than they were in 1931, statistics indicate. In spite of the recession in industrial activity from a year ago, stocks of heavy fuel oils are but little larger than they were fhe middle of 1931.

The widespread reduction in crude runs the past several months, the advent of reforming units and the general increase in cracking operations, have kept production of furnace oils and kerosine considerably under current demand. The result has been a decided reduction in stocks as compared with a year ago, and contrary to the usual trend the stocks have not been showing a tendency to increase during the late summer months.

Table No. 1 is a comparison of stocks on Aug. 5, 1932, with those on Aug. 7, 1931. These figures were obtained from the compilation of weekly refinery reports of 76 refiners in the Mid-Continent to NATIONAL PETROLEUM NEWS. The first week in August was chosen for comparative purposes because the first noticeable increase in buying for the early fall and winter business usually develops late in July and around the first of August.

Furnace oil stocks were 66.2 per cent lower than they were a year ago; kerosine stocks 55.3 per cent lower; gas oil 57.5 per cent and fuel oil 15.9 per cent lower. The smaller percentage reduction in fuel oil stocks can be accounted for by the fact that the stocks include all grades of fuel oil in storage. In cracking units a low gravity fuel oil often is produced which has had little demand. If stock figures for the high gravity fuel oils were obtainable they undoubtedly would show a tremendous reduction as compared with the stocks of a year ago. For several weeks now buyers have been combing the market for these high gravity oils with little success.

While furnace oil stocks on Aug. 7, 1931, were 15,613,000 gallons, this figure continued to increase until Oct. 2, when the total reached 17,083,000 gallons, before a definite downward trend set in.

K e r o s i n e stocks stayed around the 28,000,000-gallon figure until late in the year before they began to decrease. This downward trend, incidentally, was started by the purchase of a large quantity of kerosine for export, the draft on stocks never having been replaced by refiners.

THE advent of octane number rating for gasoline stimulated cracking and caused the increase in reforming units. One sales manager said recently that about all refiners were making now were "octanes and 8 gravity fuel oil." To make this gasoline virtually all the lighter fractions of the heavier oils have been broken down, either by cracking or reforming. This naturally curtailed production of kerosine, distillate and gas oil although there has been no resultant drop in demand for these commodities.

For the year 1931 the percentage of cracked gasoline to

Table 1

Comparison of Burning and Heating Oil Stocks in the Mid-Continent on Aug. 7, 1931, and Aug. 5, 1932.

(Figures in thousands of gallons, from weekly operations reports from 76 Mid-Continent refineries to National Petroleum News.)

Date	Kans.	Okla.	N. C. Tex.	W. Tex	La.-Ark.	Total
Kerosine						
8-7-31	12,714	11,951	2,058	14	1,288	28,025
8-5-32	2,396	5,914	3,462	32	721	12,525
Change	—10,318	—6,037	1,404	18	—567	—15,500
Furnace Oil						
8-7-31	2,639	12,695	(Stocks negligible in other districts)			15,613
8-5-32	1,010	4,192				5,274
Change	—1,629	—8,503	.....	.....	.....	—10,339
Gas Oil						
8-7-21	9,255	48,562	5,362	4,614	10,739	78,532
8-5-32	6,939	17,619	2,999	2,457	3,338	33,352
Change	—2,316	—30,943	—2,363	—2,157	—7,401	—45,180
Fuel Oil						
8-7-31	20,968	66,621	75,095	31,957	21,561	216,202
8-5-32	15,797	49,492	93,013	10,395	13,208	181,905
Change	—5,171	—17,129	17,918	—21,562	—8,353	—34,297

total gasoline produced in the Mid-Continent, according to figures compiled by NATIONAL PETROLEUM NEWS, averaged 31.2 per cent. From Jan. 1 to Aug. 5 this year the average has been 35.2 per cent, an increase of 4 per cent.

The stock situation has caused an unusual buying flurry for this season. Buyers began considering contracts for furnace oil and gas oil for the winter season and some purchases were made in order to fill storage before the normal price increases later in the year. This time, however, refiners have shown little inclination to contract for next season except with their own 100 per cent contract customers. Spot market buyers have combed the field for goods. Inquiries have been received from points as far east as Ohio. Material has been virtually unobtainable.

High gravity, low cold test fuel oils also have been virtually unobtainable and prices have increased steadily for the past few weeks. Sales managers now say that if steel mill operations continue to increase it will not be long until fuel oil of all grades will be considerably scarcer.

Buyers of heating oils now are wondering how long the situation will continue. Refiners apparently are not interested in increasing production to any extent at present price levels, but a few have said they believed an increase would follow should prices get to levels sufficient for them to realize a profit larger than they could realize by making gasoline. One sales manager said he believed a price of around 3.25 to 3.50 cents for furnace oil would increase output of that commodity.

There also is the possibility that after Labor Day refiners may not devote so much attention to gasoline production since stocks continue to be ample for current needs. They, accordingly, will swing to increased production of the other oils. But even then the percentage of these oils to be obtained from the crude is fairly well limited and some students of the market are inclined to believe refiners will not be able to overproduce these commodities without boosting crude runs materially, a move not generally anticipated.

What is true regarding stocks in the Mid-Continent also is true of most other refining districts. Table 2 contains the latest Bureau of Mines stock figures, those for June 30, 1932, compared with those for June 30, 1931. Kerosine stocks were larger June 30 than a year before only in the Texas Gulf district. Gas and furnace oil stocks were larger in only the Louisiana Gulf and California districts. Everywhere else stocks were lower than a year before.

Oklahoma prices of 41-43 water white kerosine ranged 2.875 to 3 cents a gallon Aug. 15, 1932. On Aug. 17, 1931, the range was 1.875 to 2.25 cents. In California kerosine ranged a trifle less this year than last. Prices of 38-40 kerosine was 4 to 4.75 Aug. 15, compared with 4 to 5 cents Aug. 17, 1931. At New York water white kerosine was 5.5 cents a gallon this year and 4.75 cents last year.

Price of 38-40 straw furnace oil in Oklahoma was 2.625 to 2.75 cents Aug. 15, compared with 1.25 to 1.375 cents last year. Price of 32-36 straw zero gas oil was 2.25 to 2.375 cents this year and 1.25 to 1.375 cents last year. Price of 32-36 dark zero gas oil was 2.25 cents this year and 1 to 1.25 cents last year.

At New York price of furnace and heating oils were 4.5 to 5.5 cents Aug. 15, compared with 4.5 to 5 cents last year. The price of No. 3 heating oil was 4 to 4.5 cents this as against 3.75 to 4 cents last year.

In California 30-34 gas oil has been ranging 75 to 90 cents a barrel as against 65 to 80 cents a barrel last year.

Table 2

Comparison of Light Burning Oil Stocks

U. S. Bureau of Mines Statistics as of June 30, Each Year
(Volume in Barrels of 42 U. S. Gallons)

District	Kerosine 1932	Kerosine 1931	Gas and Furnace Oils 1932	Gas and Furnace Oils 1931
East Coast	1,020,000	1,309,000	2,129,000	4,410,000
Appalachian	232,000	359,000	550,000	779,000
Indiana-Illinois	543,000	576,000	1,417,000	1,509,000
Oklahoma-Kansas	364,000	479,000	1,374,000	2,812,000
Texas inland	148,000	111,000	510,000	606,000
Texas Gulf	1,185,000	1,051,000	1,775,000	2,634,000
Louisiana Gulf	207,000	531,000	748,000	419,000
Arkansas and La. inland	17,000	51,000	155,000	228,000
Rocky Mountain	233,000	264,000	241,000	262,000
California	1,185,000	1,790,000	4,578,000	4,316,000
Total	5,134,000	6,521,000	13,477,000	17,975,000

THE EDITORS' VIEWPOINT

Time to Check Up The Industry's Course

By Warren C. Platt, Editor

THE new Q. D. A. plan of the Standard Oil Co. of Indiana to give buyers of 100 or more gallons of gasoline at its stations a discount of 2 cents a gallon on its principal two grades of gasoline and 1 cent on its third grade, brings to the fore all the more definitely the question of just where is the marketing division of the oil industry headed. Just what is the industry trying to do and where will it wind up if it keeps on doing what it now seems to be doing?

For some years we heard that the industry would be in fine shape if crude production could be controlled. Production is being controlled in a fairly satisfactory way right now. There are leaks, but in general the condition that crude be controlled, seems to have been met.

We also heard that the tank car markets fell to undue depths and thus let price cutters get into retail marketing and cut under the prices of the integrated companies. Throughout the spring and summer this year, by reason of cutting back refinery runs well, but not too well, the refinery tank car prices have been around a profitable level.

All things considered the industry has really done a good job so far in these two divisions; a job which brought many companies out of last year's loss figures into some profits the first six months of this year.

But eating at the industry's vitals has been the industry's policy—and this has distinctly been the policy of the biggest companies—of getting retail outlets both old and new, regardless of a steadily decreasing volume of business per outlet, and regardless of the cost in cut prices, secret discounts and various other funny things that each sales department thinks necessary to pay for such outlets.

Too little gallonage per station means just one thing and that is too many stations. There is just one way to correct this. That way is to reduce the number of stations. And that can only be done with benefit to the stockholders of oil companies, by bringing sufficient gallonage back to oil company owned stations first, to make them profitable and AT A PRICE WHICH PRICE CUTTERS CANNOT CUT. Some dealer's stations, properly located and economically operated, also undoubtedly will be continued but a very large number of retailers will simply have to quit business.

Neither the oil industry nor the public owes the retailer who is wrecking the industry, a living any more than the shoe or drygoods industries owe inefficient and unneeded retailers a living. These last retailers drop out of existence by the bankruptcy route every day and there is no public outcry in their behalf. There should be no public outcry for retaining the inefficient gasoline retailer or outlet.

Undoubtedly these retailers will organize around energetic attorneys, as they have, and will go into court with loud cries of monopoly, etc. That is too bad but it is something the oil industry will simply have to fight down or let the whole industry go into bankruptcy, which would not be fair to the millions of oil company stockholders whose interest comes ahead of unneeded gasoline outlets.

WHAT will be the outcome of the Standard of Indiana's latest move is a little hard to foresee. It may "gum up" the price situation all the more. It is possible that some consumers will group themselves together and try to get the discount. What the Independent refiners will do in competition with it, is not yet known although some of them are opposed to following it in the hope that it will not affect much gallonage.

One thing is true and that is, it would be a crying shame if this reduction jeopardized either the tank car or crude oil markets. Those prices, in justice to all and the country at large, should be maintained and the troubles in the marketing end worked out on top of those prices. The straight refining and producing operations should not be penalized for years of bad policies in marketing.

To have a drop in crude or tank car prices right now would react against the whole industry in the stock market and would unquestionably have a bad effect on the stock market as a whole. The recent advances are to be much commended as pointing the way for the public to get itself out of this depression.

The Indiana company's latest move indicates that now is a good time for the marketing leaders of the country to get together and make a study of just where they are going and where they ought to go, for a profit for their stockholders.

Transmission Lubricants Held Taxable In Treasury Department Ruling

WASHINGTON, Aug. 22

A FARM tractor is not a motor vehicle. Hence kerosine as such is not taxable as motor fuel under the federal revenue act of 1932.

Industrial benzol is not taxable.

Technical naphthas are not taxable.

Transmission lubricants and semi-fluid lubricants used in Tryon shackles are taxable.

Retail dealers may post the federal tax at their stations.

These rulings were announced by the Commissioner of Internal Revenue during the past week in response to the flood of inquiries regarding the application of the new taxes.

The tractor ruling reverses a former tentative opinion of the Treasury department and makes it sure that all kerosine is not taxable as motor fuel. The revenue act imposes the gasoline tax on all liquids the chief use of which is for the propulsion of motor vehicles. It was stated that the chief use of kerosine is for tractor fuel and under a holding that tractors are motor vehicles all kerosine would be taxable.

The tractor ruling does not imply that gasoline used for fuel for tractors is not taxable. All gasoline is taxable no matter how it is used.

The holding that kerosine is not taxable does not apply if it is mixed with gasoline to make a motor fuel. In such a case the kerosine becomes taxable.

Pointing out that technical naphthas differ in composition, properties and price from gasoline the Manufacturing Chemists' Association asked for a ruling on its taxability. It was stated that such naphthas are suitable for solvents but would not operate a car well. On this statement the Commissioner of Internal Revenue ruled that the tax would not apply.

The same organization was given an opinion that industrial benzol, which differs materially from motor benzol, is not taxable. It was pointed out, however, that if the industrial benzol was processed further or mixed with other material to make a motor fuel it would become taxable.

Considerable uncertainty has been apparent among grease compounders as to the taxability of semi-fluid lubricants when manufactured by adding soaps or soaps and other substances. The uncertainty arose over the construction placed on the fourth paragraph of Treasury Decision 4339 which defined greases.

Following is the paragraph in question which led some compounders to the belief that transmission lubricants were not taxable if compounded with soaps:

"The term 'lubricating oils' does not include products of the type commonly known as grease. Oleaginous substances are classed as grease and not subject to the tax only if (1) of a worked consistency of less than 390 penetration units, or an unworked consistency of less than 360 penetration units, by the method of test of the American Society for Testing Materials D-217-27-T and (2) free from oil or comprising oil and a soap or a mixture of soaps or of soaps and other substances."

TO CLEAR up the matter NATIONAL PETROLEUM NEWS submitted the following question to the Commissioner of Internal revenue:

"Grease compounders manufacture transmission lubricants which are a mixture of oil and soap or oil and other substances. These lubricants, when finished, have a penetration of more than 390 penetration units, worked, or 360 penetration units, unworked. In other words they are more or less fluid at ordinary temperatures, although they contain soaps and other substances. The same applies to lubricants commonly used in Tryon shackles.

"Are the oils used in making these lubricants taxable?

"In the fourth paragraph of Treasury Decision 4339 the Commissioner rules that greases are 'not subject to the tax only if (1) they have a worked consistency of less than 390 penetration units . . . and (2) free from oil or comprising oil and a soap or a mixture of soaps or of soaps and other substances.'

"The question revolves about whether '(2)' is qualified by '(1)' or whether each stands separately on its own feet."

FOLLOWING is the ruling of R. M. Estes, deputy commissioner of internal revenue, in a letter to this publication:

"You are advised that, as defined in the fourth paragraph of Treasury Decision 4339, the term 'lubricating oils' does not include products of the type commonly known as grease. Oleaginous substances are classed as grease and not subject to the tax *only* if (1) of a worked consistency of less than 390 penetration units, or an unworked consistency of less than 360 penetration units, by the method of test of the American Society for Testing Materials D-217-27-T and (2) free from oil or comprising oil and a soap or a mixture of soaps or of soaps and other substances.

"Any lubricant which does not fall strictly within the characteristics of *both* (1) and (2) of the preceding paragraph is not grease within the meaning thereof, but it is a taxable lubricating oil. In other words, any oleaginous substance which is of a worked consistency of more than 390 penetration units or of an unworked consistency of more than 360 penetration units by the method of test of the American Society for Testing Materials D-217-27-T is taxable as 'lubricating oil' regardless of its percentage of soaps or other substances."

Discounts to Buyers of 100 Gallons A Month Given by S. O. Indiana

CHICAGO, Aug. 20 ONE of the most important changes in its marketing policy in recent years was put into effect by the Standard Oil Co. of Indiana Aug. 20, with the announcement of a "Service Station Quantity Discount" to retail customers, under contract, buying 100 gallons or more of gasoline in a calendar month. It is being put into effect over the entire Indiana territory.

The discounts will be 2 cents a gallon on Red Crown Ethyl and Standard Red Crown and 1 cent a gallon on Stanolind (third grade) gasoline.

S. O. Indiana officials said that the new plan was being put into effect. "To meet the practices which many competitors have been following secretly for some time." They stated that an investigation had been conducted and that conclusive evidence was found that secret rebating had been going on for some time and had grown tremendously within the past 90 days.

For a long time the retail gasoline situation has been unsettled over the Indiana territory and at present subnormal prices are in effect at many points, especially on the third grade gasolines. In addition to stations offering gasoline at less than the general market price, the practice of giving premiums continues to present a grave problem.

Despite the prevelance of "premium giving" and "cut-price" stations, however, apparently the main reason for the new retail discounts was that of the practice of giving secret rebates, both to private consumers and commercial accounts. This practice apparently is not confined to independent operators, but is being done by dealers of the larger companies, in some cases even by some of Standard's dealers.

These dealers, either getting their gasoline by tank wagon and buying it under a discount agreement or buying in tank car lots, evidently have been passing a part of their profit on to the consumer. Whether the discount was being given in the hope of more profit from additional gasoline gallonage or additional motor oil sales, or because of the belief that a competitor was doing it, is hard to say.

In several cases, it appeared, that the dealer saw his gallonage slipping and decided some competitor was giving discounts, whereas the loss possibly was due to the general decrease in gallonage this year.

The main features of the Standard's new service station discount agreement are:

The customer must sign a contract and will receive an identification card or cards entitling him to receive sales slips on purchases. On presentation of these slips by the end of the month following the purchases, as evidence of aggregate purchases of the required quantity, he will receive refund on credit on the basis announced.

Each contract is numbered and identification cards bear the contract numbers.

These discounts can be obtained only by buying at S. O. Indiana's own service stations, or one operated under their Authorized Agents Agreement, or triple A as it is commonly called.

Dealers, who sell Standard's gasoline but do not operate under the triple A agreement, will have to work out their own discount scheme or not offer any, just as they choose.

It is strictly a retail discount and Standard assumes payment at their own stations. At stations operated under the triple A agreement, the discount pay-

Text of New Q. D. A. Contract with Consumers

THIS AGREEMENT, Made at....., this..... day of ....., 193..... by and between STANDARD OIL COMPANY (INDIANA), hereinafter styled "Seller", and..... of....., hereinafter styled "Buyer", WITNESSETH:

That the Seller agrees to sell and deliver at service stations operated by Seller, and the Buyer agrees to purchase and receive at such service stations, either Red Crown Ethyl, Standard Red Crown, or Stanolind Gasoline, from....., 193....., until such time as this contract is cancelled as hereinafter provided, and the Buyer agrees to pay for such gasoline so purchased and delivered the prevailing service station price of Seller at the time and place of each respective delivery.

In consideration of this agreement, in case the total deliveries of gasoline to the Buyer shall amount to a total of one hundred (100) gallons or more during any one calendar month, said Buyer shall be entitled to discounts in accordance with the follow schedule:

Discounts

Red Crown Ethyl.....2c per gallon Standard Red Crown.....2c per gallon Stanolind.....1c per gallon

Such discounts to be paid or credited not later than fifteen (15) days following the receipt of the sales tickets or invoices hereinafter provided for.

To entitle Buyer to discounts, the sales tickets or invoices, furnished by Seller at the time of delivery, must be sent to the Seller not later than the thirtieth day of the following month and the discounts shall be figured therefrom.

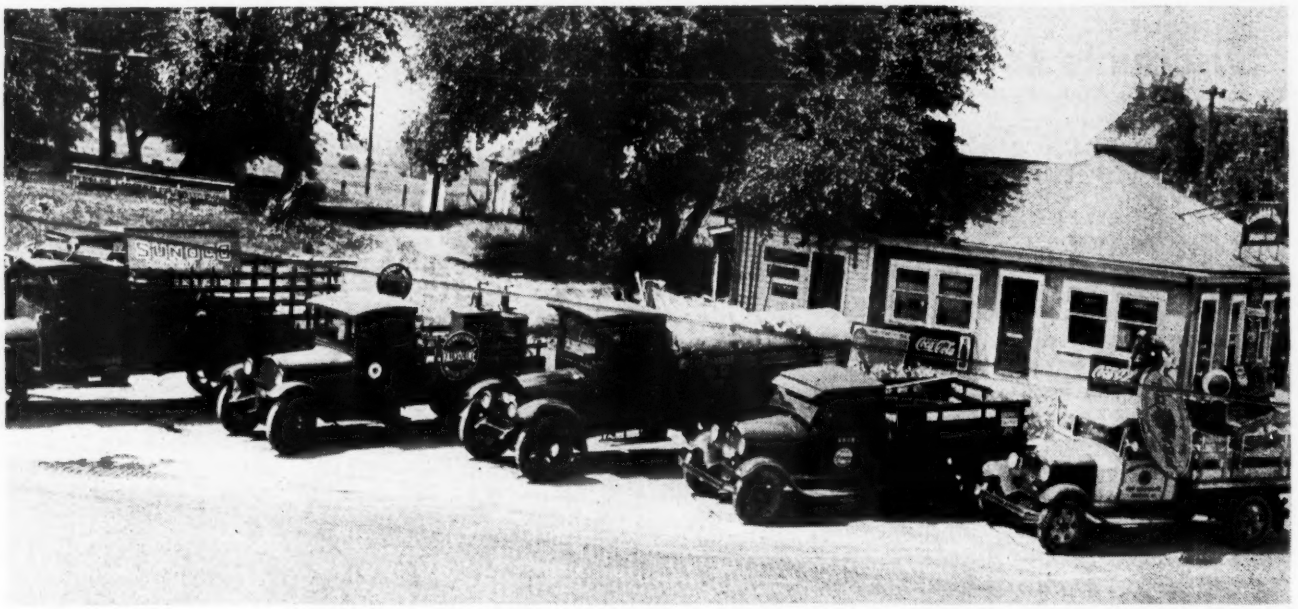
Seller shall not be held responsible for failure to make deliveries where such failure results from fires, differences with workmen, or from any other cause or causes beyond its control.

It is agreed that this contract is personal with the Buyer, and may not be assigned without the consent of the Seller and that all purchases made hereunder must be for the exclusive use of the Buyer.

This contract may be cancelled by the Seller on ten (10) days' written notice to the Buyer; provided, however, that if notice of cancellation becomes effective on any date other than the last day of the month when given, Seller will allow Buyer the total discount herein provided for on all purchases made prior to the effective date of such notice of cancellation.

..... STANDARD OIL COMPANY (INDIANA),

By .....Buyer By .....



Trucks of four oil companies lined up at a dealer station in an Akron, O., suburb with equipment being removed from the station after bootleg gasoline was discovered being dumped there at night

ments will be split 50-50 by the agent and Standard.

Corporations or companies having more than one automobile or truck will receive a separate identification card for each car or truck.

At present, these contracts may be obtained only at the companies bulk plants, but probably can be obtained at all company-owned or controlled stations as soon as the plan gets further under way.

How effective the retail quantity discounts will be in solving the problem of secret rebates and restoring gallonage lost to cut-price stations and those giving away premiums, only the future can tell. However, this retail discount plan has been tried before in the Indiana territory and there still is considerable debate as to the merits of the plan.

Back in July, 1925, the Standard of Indiana put into effect a plan whereby customers at service stations were given a discount of 1-cent a gallon if they purchased 300 to 599 gallons a month and 2-cents a gallon if they purchased 600 or more gallons a month. This was later reduced and at the time the retail discounts were discontinued, in the fall of 1928, the discount was 2-cents a gallon to buyers taking 200 or more gallons a month. The reasons for the company in putting the retail discount into effect in 1925 were to meet price-cutting, giving away gifts at stations and secret rebating.

Four Suppliers Strip Dealer Station They Find Buying Bootleg "Gas"

AKRON, O

NEAR midnight Aug. 4 J. M. Potter was returning home from a meeting of the Tri-County Petroleum club in Akron. He had heard of bootlegging, substitution and other unethical marketing practices from Frank C. Connelly who that night had been employed as a field representative of the club to ferret out bad practices, substitution and non-observance of the code of ethics.

The subject of bootlegging was fresh in his mind. He discussed this and other subjects with one of his salesmen who was with him. They came upon a tank truck which to the two oil men seemed veiled in a shroud of mystery. So they followed it.

The path led to a split-account dealer station in which were the pumps of Mr. Potter's company, the J. M. Potter Oil Co., Pennzoil distributor; the Sun Oil Co.; Valvoline Oil Co., and Standard Oil Co. of Ohio. The two witnessed the discharge of the truck's load into the tanks of the four companies. They noted the truck's license number and then decided on a course of action.

The Standard, Valvoline and Sun companies were notified as was John L. Marsh, Youngstown, secretary of the Petroleum Industry Committee of Ohio.

Aug. 6 crews of all four companies that had oil and gasoline dispensing equipment in the station removed all this equipment together with signs and fittings. The station was stripped of all oil station appurtenances.

Gasoline tax officials were notified of the case and an investigation is being made.

Mr. Marsh is having introduced in the councils of Akron and Cuyahoga Falls, an Akron suburb where the station was situated, ordinances against substitution. A state law against the practice is to be sought of the next Ohio legislature.

Prosecution, unless gasoline tax evasion is uncovered, is cumbersome in Ohio at present. It is necessary to have a customer make a complaint that he was defrauded by being given a substitute when he thought he was purchasing some particular brand of goods.

S. O. Indiana Makes Offer for Refinery And Pipeline of S. O. Kansas

CLEVELAND, Aug. 22

PROPOSED sale of the refinery, pipeline and other assets except crude oil producing properties of the Standard Oil Co. of Kansas to the Standard Oil Co. of Indiana will be voted on 2 p.m. Sept. 26 at a special meeting of stockholders of the Kansas corporation at Neodesha, Kans. Contract of sale, subject to approval of stockholders, was signed by officers of the two Standard Oil companies Aug. 19.

Acquisition of the Kansas company's refining and pipeline properties would be in line with consolidation or acquisition within the Standard Oil group of companies because economic conditions in the petroleum industry since the dissolution of Standard Oil have made the positions of some members of the group virtually untenable.

The Indiana company has contracted to pay approximately $3,430,000 cash for the Kansas properties and assets. Last year Standard Oil of New York and Vacuum Oil Co., both Standard Oil units segregated in the dissolution decree of 1911, were consolidated into the Socony-Vacuum Corp., because of the need of these two companies to be placed on an equal competitive standing with large independent corporations which have grown into power since the dissolution.

Last year also, Standard Oil Co. of Ohio acquired the properties of Solar Refining Co., Lima, O., whose position as a refiner without crude supply of its own and marketing facilities held a position similar to that of the Standard of Kansas. The Kansas company's owned crude supply is inadequate for its refining capacity, and its supplementary supply is being obtained through unfavorable contracts, its officers state.

For the Kansas company to round out its organization it would have to get new financing and push its way into the already crowded field of marketing. The Indiana company has bought in past years virtually the entire output of the Kansas company's refinery.

The present Standard Oil Co. of Kansas proposes also to dispose of its assets, including proceeds from the sale of the refinery and pipeline properties, to a new Standard Oil Co. of Kansas, recently chartered in Delaware.

The stock of the new company, of $10 a share par value, would be given share for share to the stockholders of the present company which is chartered in Kansas. Dissolution of the present company is intended. Details of the propositions which stockholders are to vote on, are given in the following letter of the Kansas company's directors, signed by C. B. Wrightsman, president:

"You will recall in March of this year, with the approval of the stockholders, a new management assumed control of The Standard Oil Co. (Kansas). We now wish to report the progress that has been made in the ensuing five months and to bring before you our recommendations for additional steps which we believe will consolidate this progress and place the company on an earning basis, with greatly improved prospects for the future. It has been our effort to work out a program that would remove the special economic handicaps surrounding your company and establish a favorable setting for its business.

"FOLLOWING the annual meeting in March, your directorate immediately initiated a thorough study of every department of your company, and of its general economic position, engaging qualified experts to conduct the investigations and make recommendations in their respective fields. As the result of their surveys, which have only recently been completed, we have formulated three lines of action and we ask your approval to put these into immediate effect.

"*First*: Our problem has been to find means for altering the economic position of your company, whose principal business has in the past consisted of the purchase of crude oil and the manufacture of gasoline and other products for distribution at wholesale. The margin between the prices of crude and gasoline has been continuously narrowing for several years, creating an increasingly unfavorable setting for our operations. These difficulties are further complicated by the existence of long term contracts for the purchase of crude oil on an unfavorable cost basis and by the long established custom of selling practically the entire refinery output to a single customer on the basis of an annual contract. These handicaps must obviously be removed if the company is to progress.

"TO CORRECT this situation, which is now depleting the assets of the company, and to avoid the possibility of being forced into new financing in order to enter the already overcrowded and excessively competitive field of retail marketing, your directors entered into negotiations with the Standard Oil Co. (Indiana) for the sale of the refinery, pipeline, and oil inventories. We are pleased to report that we have a firm offer, subject to your ratification, of approximately $3,430,000 in cash for these facilities.

"We have also been able to arrange for the cancellation of all crude oil purchase contracts, provided the above sale is approved. The amount offered is approximately the value of these properties as established by the audit of Messrs. Arthur Young & Co. If this purchase is made effective, your company will have, after providing for all debts, cash assets of over $17.50 per share outstanding while still retaining its excellent producing properties recently developed in the Mid-continent field, which are now earning net operating revenue at the annual rate of more than $300,000 under the present very restricted proration regulations.

"With these cash assets your company will then be in an ex-

cellent position, among other things, to take advantage of the real opportunities which exist at this time to acquire producing oil properties, leaseholds, and royalties, and your directors consider that this offers one of the best fields for future profit within the oil industry.

"*Second*: Our attorneys, on examination of the company's corporate structure, report that its charter issued 40 years ago under the laws of the state of Kansas does not possess that scope and flexibility for profitable operations enjoyed by many of our competitors organized in certain other states. We have, therefore, incorporated The Standard Oil Co. of Kansas under the laws of Delaware with a broad charter embodying wider provisions of our operations.

"We recommend that the assets of The Standard Oil Co. (Kansas) be transferred to The Standard Oil Co. of Kansas; that the stock of this new Delaware corporation be distributed share for share to the stockholders of the Kansas corporation; that future operations be carried on by the Delaware corporation; and that the Kansas corporation be dissolved. In this process the number of shares will remain the same, namely, 320,000, so that each stockholder of the present Kansas corporation will receive in exchange for his holdings a like number of shares of the new Delaware corporation. Prompt application will be made to list the stock of the Delaware corporation on the New York Stock Exchange.

"*Third*: The books of the company having never been audited by certified pubic accountants, Messrs. Arthur Young & Co. were retained to make a complete examination of the books and records. Their audit, recently completed, disclosed that considerable obsolete equipment and facilities were carried on the books at valuations that were too high and that the rate of depreciation of the companys plant and equipment as reported in the annual statements, had not been adequate nor as large as allowed by the government or customary according to the recommendations of the American Petroleum Institute in their standards of accounting practice.

"Feeling that the new audit more properly reflected true values, your directors ordered the new figures to be placed upon the books of your company, with the result that in the place of a surplus of $415,851.02 as of Dec. 31, 1931, the books on July 31, 1932, reflect a deficit of $2,158,571.08. In order to avoid the disadvantages of a deficit, it is proposed that the par value of the Delaware corporation stock be $10 a share instead of $25 a share, the par value of the present stock. This change in par value will result in the creation of an adequate surplus, thus correcting the results of past over-valuations and permitting the reorganized company to be in a position to resume dividend payments from earnings without first accumulating over $2,000,000 from profits to neutralize a book deficit.

"The general effect of carrying out our three recommendations may be summarized in the following tabulation:

	Status of present company and subsidiaries July 31, 1932	Approximate status of new company after giving effect to changes proposed in this letter
Name of Company	The Standard Oil Company (Kansas)	The Standard Oil Company of Kansas
State of incorporation	Kansas	Delaware
Number of shares of Common Stock	320,000	320,000
Par Value	$25	$10
Funded Debt	None	None
Cash and short term government securities after providing for all debts	$2,048,814.14	$5,375,000.00
Per Share outstanding	$6 68	$17.50
Fixed assets	Producing properties, pipeline, refinery	Producing properties
Deficit and surplus	$2,158,571.08 (Deficit)	$2,730,000.00 (surplus)

"All legal aspects of the above contemplated changes have been approved by Messrs. Sullivan & Cromwell of New York City and by Messrs. Vermillion, Evans, Carey and Lilleston of Wichita, Kan., and the financial statements herein have been approved by Messrs. Arthur Young & Co.

"Your management is glad to be able to bring these constructive proposals before you and believes it greatly to the advantage of the company and its stockholders to sell the above mentioned properties to the Standard Oil Co. (Indiana), to transfer the remaining assets to the new Delaware corporation with its broader charter powers, and to reduce the par value of the new stock to $10 per share in order to wipe out the existing deficit and permit the payment of dividends as soon as conditions justify. Holders of a substantial number of shares have already requested that such action be taken. If these advantageous changes are to be now effected, it is essential that you either attend the meeting to be held Sept. 26, 1932, or else complete the enclosed form of proxy and return it signed and dated in the enclosed stamped envelope."

Price Cutting Abatement Seen in New York

NEW YORK, Aug. 23.—Abatement of price cutting in all boroughs of New York city was indicated today with the announcement of Standard Oil Co. of New York that Aug. 24 price of gasoline would be advanced 1.5 cents a gallon to 16 cents a gallon including federal and 4-cent state taxes. This was the first price advance in New York city in several months.

Aug. 24 also Standard of New York will advance prices of gasoline 1 cent in Boston and Providence. This will make the second advance in a week in those cities. Tank wagon and service station prices at Manchester, N. H., will be advanced 1 cent.

Reductions, effective Aug. 24, are Albany, N. Y., and New Haven, Conn., 1.5 cents, and Augusta, Me., and Burlington, Vt., 1 cent.

Financial Statements Indicate Oil Industry Has Turned Corner

By Warren C. Platt, Editor

The following article was prepared by Publisher Platt, of NATIONAL PETROLEUM NEWS, *to appear on paid advertising pages of certain journals outside the oil industry, to acquaint the business world with the progress towards stability the oil industry has made this year. It is republished here because of its value as a general summary of what the oil industry has done.*

♦ ♦ ♦

THERE has been so much prophesying of business recovery that went wrong that one hestitates to predict on almost any showing of facts.

But since early Spring the oil companies have been showing a definite improvement in greatly reducing or entirely eliminating losses. The second quarter statements for many oil companies shown herewith are exceptionally encouraging. These, taken with all that has been going on within the industry for the past several years to bring about proper balance between production and market demand, would seem at this time fully to warrant the statement that the industry has undoubtedly turned the corner and is now safely headed down the road of prosperity.

The salient points which have brought about this greatly improved condition are:

(1) There has been sufficient experimenting with conservation laws in the bigger oil-producing states, which have been supported by a number of most important court decisions, so that the industry now is able to regulate the production of crude oil to stay within the market demand.

The machinery by which this is being done is faulty, it has loop-holes and its use of the national guard of Texas and Oklahoma, looks, a bit grotesque; but at all events the machinery is working and as it works it is indicating what should and will be done to perfect it. There is little chance, regardless of remaining legal barriers, that the big oil producing states will let their natural resources be wasted, or be brought to the surface at a rate unprofitable to the states and their citizens, because, when the industry is operating profitably, these states directly receive millions of dollars a year in taxes from their crude oil production and their farmers and citizens many more millions.

The oil industry undoubtedly will have unpleasant difficulties in dealing with state governments in the future, but there can be no question but that both parties to every controversy will be seeking such prices as will be profitable to both.

(2) For several years now the manufacture of gasoline, lubricating oils and other petroleum products by refineries has been steadily restricted until today it is a bit below what the market will profitably absorb, which means that some of the excessive stocks of crude and refinery products are going into consumption for cash.

Prices at refineries, while not entirely profitable, at least are such as to begin to get the refineries on a profitable basis. This has been brought about by making oil men understand that prices are bound to be unprofitable as long as market surpluses are manufactured. Accurate statistics as to the industry's weekly position, have been the chief means of forcing this education and to this NATIONAL PETROLEUM NEWS has for years been contributing through a weekly refinery operating report of the key refineries from a price standpoint.

Retail market prices are suffering from too much competition but there is evidence of improvement in operating methods here which will clean out the ruinous price cutting.

The best of all this improvement is that the industry, with the advice but not the dollars of federal and state governments, has done it itself. The recovery is entirely outside of the factors that are bringing about the general business recovery. The oil industry is simply letting the law of supply and demand work, but seeing that it works for the industry and not against it.

The oil industry has had to cut expenses drastically to bring about today's favorable result but the cutting is over. For several months there has been a slow but steady increase in purchases to replace worn out or obsolete equipment. Manufacturers can expect this to increase in conservative manner and they will find that the oil companies will have the money

---

THE story of oil industry improvement is strikingly told by the change in the second quarter of this year as compared with the second quarter of last year.

Of 15 companies making reports for second quarter—One company more than tripled net profits to $3,986,302. Ten companies changed from $15,236,823 net losses last year to $8,179,177 net profits this year. Four companies decreased net losses of $13,692,058 last year to $518,709 net losses this year.

Net Earnings for Second Quarter After Expenses, Taxes, Interest, Depreciation, Depletion and Other Reserves

Companies That Increased Net Earnings

	1932	1931
Standard Oil Co., Calif....	$3,986,302	$1,275,358

Companies That Went from Losses in 1931 to Profits in 1932

	1932	1931
Amerada Corp.....	$ 327,161	*$ 536,450
Continental Oil Co.....	1,616,346	*4,037,698
Lion Oil Refining Co.....	70,641	* 82,392
Mid-Cont. Pet. Corp.....	303,844	*2,073,198
Ohio Oil Co.....	2,442,092	*3,139,996
Phillips Petroleum Co.....	1,324,430	*2,054,802
Seaboard Oil Co., Delaware	194,471	* 34,917
Skelly Oil Co.....	235,107	*1,926,538
Texas Pacific Coal & Oil Co.	92,988	* 464,943
Tide Water Associated Oil Co.	1,572,097	* 885,889
*Net loss.....	$8,179,177	*$15,236,823

Companies That Lowered Net Losses in 1932 as Compared with 1931

	1932	1931
Louisiana Oil Refining Co.	*$233,800	*$614,626
Panhandle Producing & Reing Corp.....	* 31,525	*168,121
Shell Union Oil Corp.....	*193,126	*11,606,034
Simms Petroleum Co.....	* 60,258	*1,303,277
	*$518,709	* $13,692,058

*Net loss.

on hand to discount all bills for it.

In the meantime oil companies will continue to pay dividends, or to increase dividends, or to resume dividends, thus distributing tens of millions of dollars quarterly to the many millions of oil stockholders the country over. And the oil companies will be paying millions of dollars a year in royalties to hundreds of thousands of farmers in almost half the states of the Union.

The oil industry is making a real and most substantial contribution to the return of general prosperity and is doing it without a dollar of government money.

Gum Formation Prevented By New Inhibitors

DENVER, Aug. 23.—Formation of gum in gasoline during storage or use can be prevented as a commercial proposition by the addition of a small quantity of organic materials, according to research results reported by Drs. T. H. Rogers and Vanderveer Voorhees of the Standard Oil Co. of Indiana, at the meeting of the American Chemical Society in Denver this week. Studying the same subject, Drs. Gustav Egloff, J. C. Morrell, C. D. Lowry, Jr., and C. G. Dryer, of Universal Oil Products Co. have found that a distinct correlation exists between the inhibitory efficiency of chemicals and their oxidation-reduction potentials.

After studying a large number of organic materials in use as gum inhibitors, Rogers and Voorhees have found that para-benzylaminophenol shows the highest efficiency as an inhibitor. The amount of this material required to prevent gum formation in stored gasoline under the test conditions employed is one of three thousandths of one per cent.

Other materials showed varying degrees of efficiency, and the list includes both nitrogenous and non-nitrogenous compounds. P-benzylaminophenol is stable to light in gasoline, and forms a colorless solution.

Lowry and his associates have found that the best inhibitors have oxidation-reduction potentials between 0.600 and 0.800 volts. Those with potentials between 0.800 and 1.043 volts show much lower efficiencies while those above this potential have little if any inhibitory effect under the conditions of test. Hydroquinone and some other materials show an inhibitory action lower than their potentials indicate; this is ascribed to their tendency toward direct oxidation under test conditions.

The significance of these investigations to the refiner is a material reduction in the cost of refining especially cracked distillates. Retention of anti-knock rating originally in the gasoline will also be possible to a greater degree than is the case when inhibitors are not used. Loss of octane number will be less with less treating; it will also be less with lowered gum formation in storage. The work reported by Lowry and associates is a continuation of some extensive work reported earlier before the American Petroleum Institute[1].

[1]Nat. Pet. News, Dec. 4, 1929, p. 40.

Orders Prorating Production At Conroe Withdrawn

HOUSTON, Aug. 19

ORDERS prorating Conroe production, in Montgomery county, 40 miles north of Houston, were withdrawn by the Railroad Commission of Texas, August 18, following an attack made on its regulations by the Alpha Petroleum Corp. A rehearing on Conroe conservation rules was then called for August 30.

The Alpha corporation, which has been flowing its one well above the Conroe proration allowance of 220 barrels per well daily, previously attacked state orders in an application to Federal District Judge T. M. Kennerly at Houston.

Judge Kennerly denied a temporary restraining order asked against the railroad commission and other state officials, but gave permission for Alpha to file formal suit and bring the issue to hearing on its merits. The railroad commission then withdrew its order, following which the Alpha corporation withdrew its complaint.

The way is now left open for the Alpha corporation to produce unrestrictedly from its Conroe well until the railroad commission issues new orders based on its August 30 hearing, after which the operator may again take issue with the conservation agency.

In the Alpha complaint, the company set forth that it is developing about 25 acres at Conroe, has one producing well and plans the drilling of several others. The company contended no waste or damage to the field would result from the well producing its full capacity daily, notwithstanding the railroad commission had ordered Conroe wells prorated at 220 barrels daily, 40 barrels per well plus nine barrels per acre on 20 acre units.

There are now nine wells in the Conroe field, producing about 4500 barrels daily, including the Humble Oil & Refining Co.'s newly completed No. 1 Steinberger, in the John A. Davis survey, offsetting the Heep & Houston Oil partnership's No. 1 Freeman. The Humble well, completed for 540 barrels choked initial production, got pay at 5080 feet, the highest in the field.

Humble Pipe Line Co., with an 8-inch lateral, and The Texas Pipe Line Co., with a 6-inch outlet, serve the Conroe field. The Texas line was placed in operation about 10 days ago. Previously, the Humble had handled all Conroe oil, on a pipeline proration of 400 barrels per well daily prior to the railroad commission's 220 barrels per well order. Now there is no official limit to Conroe production until new orders for the commission are issued.

Demand More Aggressive Oil Theft Prosecution in East Texas

HOUSTON, Aug. 20.

COMPLICATIONS were growing in the East Texas crude oil situation as the week ended. Operators protested that the state was not prosecuting proration violators aggressively. Another instance of violence appeared.

Operators generally were blaming "oil thefts" and production outside proration allowables for the competition that had forced the Liberty Pipe Line Co., Inc., to withdraw from East Texas purchases, Aug. 18.

The Liberty pipeline had been transporting approximately 3000 barrels daily from the field to its connection with the Van-Pure Pipe Line Co.'s system for contract delivery on the Gulf Coast near Beaumont. Deliveries hereafter will be limited to terminal points on the Liberty's own line, Vice-president Mills Cox announced.

East Texas oil, gathered and transported to the Gulf Coast for loading aboard tanker after purchase at the posted field price of 98 cents a barrel, takes a total f.a.s. price of approximately $1.30 a barrel. At least one cargo was moved from the Gulf Coast at $1.11 a barrel, f.a.s., and other offers of similar priced crude have failed to find takers at seaboard, indicating under-the-market sales in the field.

A group of Fort Worth operators wired Attorney General Allred, August 18, saying:

"We who have been playing the game according to rules in East Texas are tired of contending with thieves and over-producers there. Charges are made that your assistant in East Texas is not co-operating properly with railroad commission in prosecuting injunction suits when evidence is conclusive. Also that evidence has been shown your department that operators who have been enjoined continue to overproduce in contempt of court without penalty.

"We feel that aggressive effort through proper assistance from your department who in no way are related to those violating proration orders in East Texas would stop illegal production promptly.

"Prompt prosecution of several of those who owe the state penalties and foreclosure of these penalties would serve as example sufficient for all violators. This illegal production is hurting us all. We are losing connections with independent pipelines that cannot stand competition from these thieves and longer and it is only a question of days in our opinion before a general price cut is initiated."

Bruce W. Bryant acting in the absence of Attorney General Allred, in Wyoming, replied to the protest telegram saying: "Department feels it is co-operating fully and has filed and preparing now to file all suits in instances referred to us by railroad commission."

Charles F. Roeser production vice-president of the American Petroleum Institute and president of the Texas Oil and Gas Conservation Association issued a statement at Fort Worth saying he thought the wire sent the Attorney General's department will be a great help in bringing the East Texas situation to head. Continuing he said, "Violators have profited from the fact that 95 per cent of the East Texas producers have compiled with commission orders, and it is high time for all constructive independent producers who have abided by the commission orders to be given the protection to which they are entitled.

Sabotage appeared in East Texas Saturday night, Aug. 20, when Vandals dynamited a well on the Humble Oil and Refining Co.'s Killingsworth lease near Gladewater, in Gregg county. The dynamite blast put out fire already started near the well, but wrecked connections and Christmas tree.

Three nearby wells of Sinclair-Prairie Oil Co. also had been opened up by the vandals. Low hanging gas clouds from affected wells threatened this part of the field which is now being closely watched by the military.

Estimates in the industry for weeks have been that "stolen" and illegally produced oil in East Texas exceeds 25,000 barrels daily. In some quarters estimates have been made of double that quantity.

Fred Upchurch, assistant attorney general, filed suit for the state in Travis county district court at Austin against 12 operators in the East Texas field, August 19, charging violations of railroad commission proration orders. Penalties also were asked.

Included among defendants were the Shell Petroleum Corp., the London Petroleum Corp., Hill Reed, Inc., Mission Oil Co., Bobby Manzell of Gladewater, C. F. Greenwood of Gregg county, the East Texas Oil & Refining Co., R. W. Porter of Gladewater, V. O. E. Wright of Gladewater, B. E. Wright of Gladewater, P. Middleton of Tyler and the V. O. E. Refining Co., of Gladewater.

Injunctions against all the defendants except the two Wrights and Middleton was granted by Judge J. D. Moore, enjoining and restraining defendants from violating production orders. The Wrights and Middleton, alleged to be owners of the V. O. E. refinery, were enjoined from purchasing oil from R. W. Porter or any other person in the East Texas oil field not produced in accordance with railroad commission orders.

E. A. Durham Dies

CLEVELAND, Aug. 22.—E. A. Durham, widely known crude oil producer, died Aug. 20 at Sistersville, W. Va., his home. Mr. Durham was president of the Wiser Oil Co. and Petroleum Exploration Co. He also was president of a bank in Sistersville and was interested in natural production as well as oil. His funeral was to be held Aug. 23 at Sistersville.

Late Production News

TESTING the area of new pool openers in Texas is going on apace. Two miles from Conroe field production an uncompleted test is logging so well that an offset has been started. Three tests are near completion in the new Pettus field. In Ward county a small well extends production 1½ miles. In California several companies are preparing important drilling programs. Kansas producers are watching a Kingman county wildcat drilling on an extensive high.

Texas

IN NORTHWESTERN Ward county Renaud & Prettyman, No. 1 University, NE, Sec. 4, Bl. 16, extended productive territory 1½ miles south when it began heading three barrels an hour from a sand found from 2685 to 2688. Though there is nothing startling about this flow, the fact that the well is located on a huge block of acreage largely controlled by a major company indicates that if a new pool results, restricted development will follow.

Three miles south of the Pettus field in northern Bee county, the new Tuleta pool has three tests approaching the sand in the neighborhood of the lone producer. This well, Nichols et al, No. 1 Harris, Durango Grant, discovered the area three weeks ago and had an initial of about 300 barrels per day. The pay was in sand from 4094 to 4098 and the well is making 143 barrels of nearly colorless crude. Proration orders this week limits spacing of future wells to 660 feet and to 10 acres, and puts the maximum gas-oil rate at 2000 cubic feet.

The failure of the Slick-Seeligson, No. 7 Ray, marked the north limits of an extension to the North Pettus field. No pay had been found at a total depth of 4110 feet, 100 feet lower than the south offset.

The new Keeran pool of Victoria county, discovered last week by Victoria Oil Corp., No. 2 Keeran, is to have a pipeline outlet in the near future. Gulf Pipe Line Co., is arranging to lay 1600 feet of 3-inch pipe to a loading rack. The well which started with an initial of 1000 barrels through a ½-inch choke is now shut in. The Gulf Oil Corp., owns most of the acreage in the large block on which the well is located and holds a controlling interest in the Victoria Oil Corp., through trading of acreage for drilling.

In Montgomery county, where the Conroe field has been rapidly developing for the last two months, extensions are a prospect for the coming week. Humble Oil & Refining Co., No. 1 Dobbins, R. House Survey, two miles southeast of production, logged the Hockleyensis, key horizon of the area, at 3905 feet, 100 feet higher than it is found in the producers. It already has a gas sand and is looking so much like a real extension that The Texas Co., is offsetting on the south ahead of its completion. Several deep tests are being drilled in or near the field to test deeper horizons.

Completions and locations in East Texas have slowed to approximately 15 daily in each classification, with active operations still above 600 in the field. A gradual scaling down may be expected in development as the territory becomes more nearly drilled up, but several thousand wells are yet to be completed. There are now in excess of 7500 wells in the East Texas field, prorated at 43 barrels per well daily.

Daily Average Production Important Districts, American Petroleum Institute Figures

(By Telegraph)

	Week Ended Aug. 20 Barrels	Aug 13 Barrels
Okla. City	65,750	103,150
Total Okla.	390,600	417,350
East Texas	328,850	322,100
Total Texas	858,050	862,400
California	474,100	479,200
East of Rockies	1,636,700	2,665,000
Total U. S.	2,110,800	2,144,200
Crude Imports	45,428	66,142
Total New Supply	2,156,228	2,210,142

A Duval county wildcat that threatened to open a new field 10 miles north of the Government Wells area of southwest Texas is now making salt water and will be plugged back for a gas completion. It is No. 1 Hagist of Buchanan and others, in the center of the southwest quarter of survey 267. Sand was found at 2110-2122 feet carrying gas; and a pay at 2134-2144 carried a little oil.

California

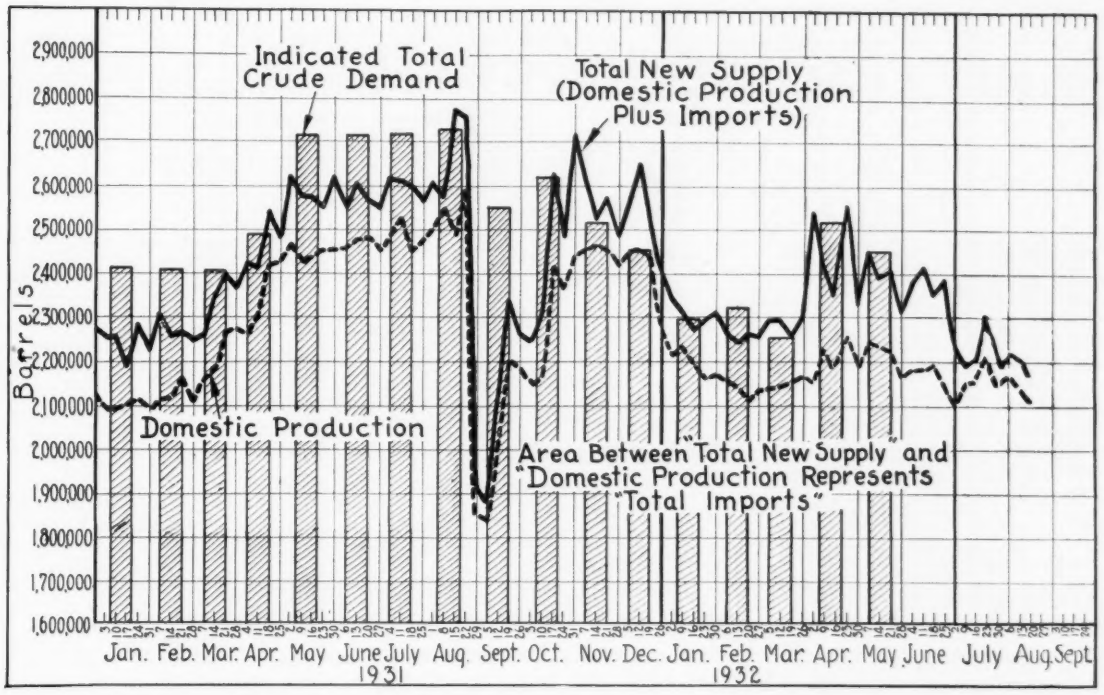
ALTHOUGH completions on the Pacific Coast were few and of a mediocre nature, the past week, several operating companies were preparing drilling programs that should keep California in the limelight during the coming months.

At Ventura Avenue, Associated Oil Co. will soon have four strings of tools busy. Two wells now drilling at 6348 and 5912 feet, respectively, will be continued down into the deep sand recently opened up by the company's Lloyd 83 at 9710 feet for an initial production estimated at better than 5000 barrels in 24 hours. The company also plans to start two other wells on the northeast end of the field. These will have a 7500-foot horizon as an immediate objective but will be deepened, ultimately, to the deeper sand.

Standard Oil Co. of California is about ready to spud three new wells on the Kettleman Hills North Dome and, in addition, has three active strings at Coyote Hills in the Los Angeles Basin, one on Santa Rosa Island, offshore from Santa Barbara, at deep test at Taft, and two active drillers at Kettleman.

A stubborn fishing job in Western Gulf Oil Co.'s Bradley No. 1, a wildcat test bottomed at 10,294 feet in the Santa Maria district, continued to delay progress that it was hoped would open up a new light gravity oil pool. Some 2400 feet of drill pipe remains in the hole on top of a frozen bit. A production test of showings at about 5000 feet may be tried if the fishing job fails.

A new completion on fee land of the Kettleman Hills



This chart shows crude supply according to the American Petroleum Institute reports (solid line) in relation to indicated crude oil demand as taken from the Bureau of Mines monthly reports (shaded columns)

North Dome is expected within the week. Associated Oil Co.'s Whepley No. 3, which offsets Shell Oil Co.'s Dixon and Petroleum Securities' Felix leases on the east flank of the structure, is bottomed at 8790 feet.

In the Santa Fe Springs of the Los Angeles Basin, several operators were plugging back deep-sand producers to recomplete them in the shallow Meyer zone. The Meyer horizon was used to store gas in during the days of flush production from the deep sands and this gas is now helping recovery from the shallow zone.

Oklahoma

AN OLD argument which never seems to be completely settled is being presented to the authorities again in Oklahoma City. This is the question as to just where the line shall be drawn marking the northern limits for drilling in the city. A petition has been requested by a large number of property owners asking that 280 acres comprising 38 city blocks northeast of the state capitol be placed within the drilling zone. There are few homes in the area but civic organizations are fighting the move. Most of the region is wildcat territory but geologists have stated that it has definite possibilities for oil.

Attempted rejuvenation of old wells and pools continues but there were no completions of note during the week. In the west Seminole pool the Gypsy Oil Co., No. 2 Pompey, SE SE NW, 29-9-6, the Wilcox sand was toped at 4128 and when 14 feet in, the well filled with oil. It swabbed 100 barrels in 12 hours, failing to make as good a well as some of the other deepened wells in the area.

Committee Working on Hobbs Unit Plan

HOUSTON, Aug. 20.—A committee of three representing operating interests in the Hobbs field, Lea county, New Mexico, is attempting to iron out discrepancies in the proposed unitization plan for the Hobbs field. The committee is composed of L. E. Barrows of The Texas Co., and Ed L. Landreth of the Landreth Production Co., both of Fort Worth, and Ralph Pringle of the Tidal Oil Co., Tulsa.

A majority of the Hobbs field operators are reported willing to co-operate in unitizing the field, though some are not entirely satisfied with the program as now outlined.

Kansas

THE most interesting well in Kansas, and one that has been watched closely by all operators for some weeks, is the Skelly Oil Co., No. 1 Cunningham, SE SW 20-27S-10W in Kingman county. This well has sometimes been called the Leisman well. Its present total depth is 4182 feet, 88 feet in the Siliceous lime. Though no oil shows have as yet been definitely located, it is possible that a pay horizon may have been found without its presence being known since drilling is being continued with a loaded hole. The well has had an interesting log and is thought to be on a structural high of fair proportions. Gas in the Viola lime above and failure to find the Mississippi lime in the section have been favorable signs. Drilling is to be continued to 4200 feet before the hole is bailed for a test.

The only other significant happening during the week in the whole state was the appearance of water in one of the inside wells of the Strattman area of Ellsworth county. As is usual with Siliceous lime wells, if production is not withdrawn slowly and with a continued back pressure, water early cuts off production.

Both from Pennsylvania!

BUT ALL PENNSYLVANIA OILS ARE NOT ALIKE!

The word "Pennsylvania" covers a multitude of men . . . and motor oils.

"Pennsylvania" . . . while it is the name of the finest crude oil in the world . . . is also the tag on some of the crudest motor oils in the world . . . Oils that have a good start but a poor finish . . . because they are improperly and cheaply refined.

VEEDOL begins with the finest Pennsylvania crudes from the Bradford field—the richest of all. Then, step by step, these rich VEEDOL crudes pass through a secret $2,000,000 refining process that has no counterpart in the world. It makes VEEDOL heat-proof. Makes it cold-proof. Makes it anti-carbon.

No motor oil in the world gives the motorist more in protection and economy than VEEDOL . . . And no motor oil gives the distributor more in practical cooperation and possible profits than VEEDOL.

Line up with VEEDOL . . . Cast your lot with Tide Water, a 52-year old organization that has the products, the resources, the experience *and the courage* to develop its distributor business now.

Mail the coupon . . . Investigate the "Tide Water Distributor Plan NOW!"

GENERAL SALES MANAGER,
Tide Water Oil Sales Corp.,
17 Battery Place, New York, N. Y.

Dear Sir: We are interested in the "Tide Water Distributor Plan." Please have your representative call.

*Name*_____

*Street*_____

*City*_____ *State*_____

DON'T MERELY SELL "PENNSYLVANIA"

sell Veedol MOTOR OIL

100% PENNSYLVANIA AT ITS FINEST

TIDE WATER OIL SALES CORPORATION
17 Battery Place, New York City

•

MID-CONTINENT HEADQUARTERS
Philcade Building, Tulsa, Okla.

Machinery Robbing, an Emergency Practice, Will Prove Costly Later On

By William F. Lowe
N. P. N. Staff Writer

TULSA

MACHINERY robbing is the latest term to come into general use in the oil industry. It means just what its name implies, that, instead of buying new parts, those needed to repair active power units are taken from machines temporarily shut down.

The practice has been going on for years in a more or less restricted fashion. Emergencies in many a plant and on innumerable leases have forced substitution of parts; but only in the last two years has this repair method reached the point of established custom. At the present time no branch of the industry is free from regular indulgence in this activity.

As an emergency measure it has no equal for temporarily maintaining operating efficiency, but, if replacements are not made after a reasonable time, the effect is just the reverse. The plant or lease so operated reaches a point where a shut down is necessary with the next break down.

A case in point is that of a compression plant which had been operating on a curtailed schedule in the Seminole area of Oklahoma. For nearly two years no new parts had been purchased for the working units and the supply of spare parts to be taken from the idle units had run out. It was decided that the remnants of four of the latter units should be sold and the proceeds used in the rehabilitation of the plant. The purchasers of the robbed units bought them at a ridiculously low figure but had to spend $3500 for new parts; while the sellers, though they received enough money to put the rest of their machinery in good shape, had taken a loss of more than twice that amount in making the sale.

This is what is generally called depression economics. The oil company purchasing department had strictly obeyed their orders not to spend any money, but the parts which they stole from the units they sold cost them double their market quotation.

It is true that this may be an unusual example, but the extent to which this robbing has been going on is not fully appreciated until some of the manufacturers are interviewed. One of the larger houses specializing in oil country engines and compressors has indicated that their income from repairs and the sale of spare parts dropped 75 per cent below normal in the year ending June 30, 1932. Another house selling a similar line said this portion of their business is off over $112,000 during the same period.

There are several causes for this situation. Chief among them, of course, is the mania of the oil producer to conserve his cash by curtailing his overhead and operating expense. In this, most of the companies are postponing the evil day when investments must be made. Equipment can only run a certain period without repairs and if those repairs are made only by robbing other equipment units, that is, "borrowing from Peter," Paul is bound to get paid but Peter will start calling sometime for his.

The saving of expenditures at this time may look bigger to some producers than the actual saving of cash on purchases. There are probably many cases where this is true, but, where the cash is available, it will never be able to earn on interest a sum greater than the savings permitted by the present low prices of repair parts.

The second factor having major bearing on the increase of machinery robbing is proration. Regulating the production of both oil and gas has curtailed all operations. Gasoline plants and refineries are running considerably below capacity, in some cases as much as 70 per cent, and whole fields are shut in to 50 barrels or less per well per day. It is only natural then that there should be some reduction in the amount of repairs necessary to maintain equipment. This fact probably accounts for a certain amount of the reduction is income for some of the manufacturers.

Supply men contend, however, that proration alone would bring such drastic cuts in repair purchasing as are now apparent. They feel that the restraining orders placed on operating departments by oil company officials are principally responsible.

There are many machine shops scattered about the various oil fields where excellent work can be done. The patronage of such places, particularly in emergencies and for work of a routine nature, is good business. However to use them to the exclusion of the responsible manufacturing and supply houses will eventually cut off the servicing organizations which they have built up just for the oil industry.

It has taken a long time to bring these service departments up to their present efficiency and, because of their gradual growth, it is possible that some oil companies do not realize how much of a factor they are in their own operations. It is true that the new parts and the repair service supplied by these organizations may be higher priced than those offered by local institutions, but the reason does not lie wholly in greater overhead and the necessity of dividend

payments, as is often claimed. Their products can only be sold on a quality basis in these days of tough competition, and the maintenance of that quality by proper repairs is a serious consideration with them. Reorders, or additional orders in the same neighborhood, have been missed because inferior parts replacements have resulted in the condemnation of the whole installation. Wherever it is possible to do so, a personal car is always taken to the repair specialist of that particular make, and the same consideration should be given to oil field machinery.

There is only one encouraging consideration in all the above discussion. It cannot go on forever, and the time is not far distant when machinery robbing and uneconomical replacement practice must bring a sharp turn toward saner purchasing. The whole situation is much like the depressed condition of business generally, though there is this practical difference. General business is merely marking time awaiting the return of confidence to the buying public; while the oil industry is marking time awaiting the return of confidence in itself.

McKay Joins Wackman

CLEVELAND, Aug. 22.—The Wackman Welded Ware Co. announce the employment of L. F. McKay, as assistant to the president. Mr. McKay will be in charge of package engineering.

He was formerly with the American Flange and Manufacturing Co., of Chicago, and was secretary of that company for seven years. His headquarters will be at St. Louis.

Episode in Life of T. N. Barnsdall In Owen Young Biography

AN AMUSING episode in the life of Theodore N. Barnsdall, pioneer oil and utilities man and founder of the Barnsdall Corp., recently was run across by George D. Locke, vice-president of Barnsdall Refineries Inc., and president of the Western Petroleum Refiners Association. The episode is related by Ida Tarbell in her recent book "Owen D. Young—A New Type of Industrial Leader."

Back in 1900, according to the story, Owen D. Young had just completed a contract with the city of Galveston, Texas, for installing a street railway system. He was instructed by wire from Stone and Webster at Boston to proceed to El Paso on a similar project.

At El Paso Mr. Young found one road in operation consisting of single mule car with tracks running across the Rio Grande. The owner wanted $25,000 for his franchise which Mr. Young declined to consider. Instead he wrote a contract with the city which he wired his principals was the best contract ever written. Councilmen signed it.

A few days later, the story goes, Mr. Barnsdall came to El Paso from certain prospecting he had been doing in Texas. He followed his usual custom of digging up news of what had been happening and soon learned of the Stone & Webster street railway contract from the owner of the mule-car line which had been priced at $25,000.

The Tarbell book gives the following account of what happened next:

Barnsdall had an idea—"If I buy your mule for $25,000 will you get me a contract from the city council?"

"Sure," he said—and he was as good as his word for a few days later Barnsdall took the train for Boston with contract properly signed by the city council of El Paso.

In Boston he went at once to Stone & Webster. "I would like to sell you a street railway contract that I have secured at El Paso."

"But we have got for El Paso what Owen Young says is the best contract that was ever drawn."

"It's a good contract," said Barnsdall, "I have read it—but I am willing to leave it to Owen Young to say whether mine is not better. If he agrees that it is, you are to give me a good block of common stock in exchange. If he does not, I will give you my contract for nothing."

Owen Young was called in and Barnsdall's contract was read. Word for word it followed Young's until it reached the words, "In every street present and future of the City." After "in" and before "every" Barnsdall had written in the words "the middle of"—so that he had a contract for running a street railway down the middle of every street, present and future, of the town. Stone & Webster could use the sides of the street if there was room enough.

They were good sportsmen and gave him his common stock. "And that," Mr. Young says when he tells the story, "was the bitterest humiliation of my professional life."

WATER PRODUCERS FOR THE PETROLEUM INDUSTRY

26 Broadway
NEW YORK

Kennedy Building
TULSA, OKLAHOMA

That New Conception

By Ellick Botts, Consulting Pumper, Gray Horse, Okla.

IN RECEIPT of a mass of letters, or anyway two or three, urging that something be written to clarify the "new conception" subject, I have put aside my chronic dislike for meddling into religious affairs. The industry, almost to a man, has been puzzled by the action of the American Petroleum Institute directors, who issued a bull last winter in Chicago, saying that they had thought up this new conception and that from here on out it is too bad for the man who thinks he can get more oil from the lease than it originally contained. The latter practice was, of course, the "old," or immaculate conception.

It is obvious, is it not, that to apply the new thought to the business of producing oil, there must be some way of finding out how much oil there was originally under that south forty. As yet, the A. P. I. directors, being no doubt busy with immediate problems, have not supplied a list of the factors that enter into the calculation of what is known as "oil in place."

To begin, oil is, as everyone knows including some federal judges, a migratory substance. This has been recognized by the State of Colorado, which has placed the control of oil and gas matters in the Department of Immigration.

The wandering of this substance seems to occur with greatest intensity after the field has been discovered. It is especially pronounced in fields that are under proration. Whole train loads of oil and sometimes tank steamers full have been found as far as 500 miles away from the lease of origin, in the possession of someone who owned the offsetting property. This is known as fugaciousness, or fugacity.

So-o-o-oo, we must begin by listing those little points that must be considered in figuring up how much oil a man possesses in place. First of these is, of course, porosity of the producing sand. This is determined by asking Information for the name of a good man whose porosity exceeds that of all others who claim to be porous, and setting him at work.

Next we consider the matter of sand thickness. Probably, just to make it more confusing to the owner of the land, it would be well to state this in meters, etc.

Permeability is another of our factors. This is the ability of a sand to absorb oil. It is not to be confused with gullibility, which is the ability of the public to absorb a sour bond issue.

Structural position of the lease comes next. It is taken for granted in working out the new conception that the structure map which is used will be the one the company uses itself, and not the one it shows the bankers.

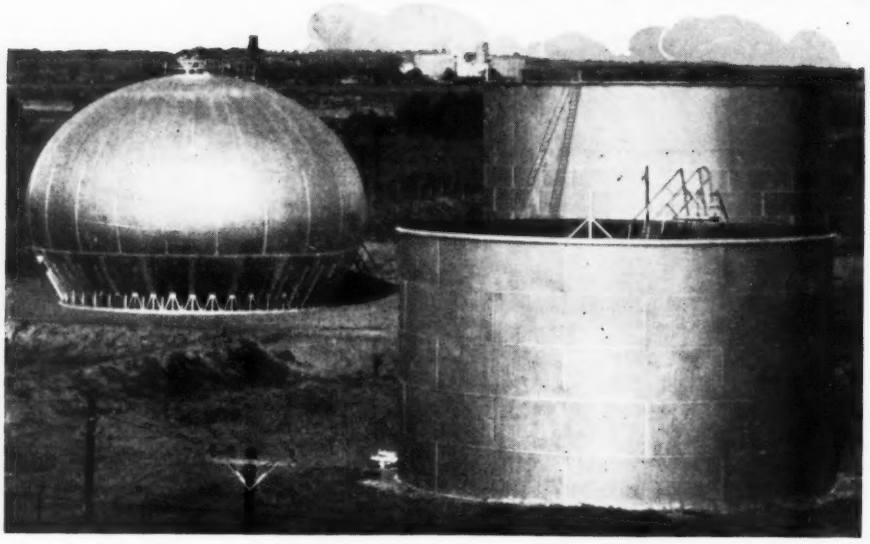
Gas factor is highly thought of among the New Conceptionists. It is the amount of gas that can be produced, under alternate writ of prohibition, per barrel of oil. Sometimes a lease, or a well, in an oil field produces nothing but gas. Under the new conception such unfortunate property must be given consideration and the owner rewarded on the ground that his lease supplies energy which moves oil to other wells. The problem before us is to decide on the amount of reward. In this respect, the future is dark and the clairvoyants offer us no wisdom.

Some weight will be given in the new conception to the age of the reptiles, flora, fauna, mammals, oviperous birds and animals and other varmints whose skeletons are found under the lease. Since a well known company has sold the public on the idea that the older the oil the better the lubricant, due consideration must apply to the longevity of the underground content of a lease. If my forty can be shown to contain oil that has been mellowed 130,000,000 light years and yours, offsetting mine, has lain fallow for only 42,361,000 years, yours is practically in the larva stage as yet and not to be considered as weightily as mine. A committee is needed to work this out accurately, as the details are a little hazy.

IN RECENT years oil has been found by setting off charges of dynamite and measuring the direction and intensity of the resulting synthetic earthquake with a seismograph. In calculating the amount of oil in place under a lease, notice must be taken of the number of times it has been "shot." Obviously, this migratory oil will be made more jittery than ever if somebody keeps coming around and shooting dynamite and, in time, the oil may be driven away.

One of the most important factors of all is the degree of blood relationship (consanguinity) of the operator to the chairman of the board which is to pass upon the relative worth of leases in a pool.

Position of the company with reference to the National Guard is another point that is highly pertinent. The operator who has an employe that has worked up no higher than a sergeantcy or a corpulency must expect to find



HORTON TANKS

for Marketing, Refining or Pipe Line Use

HORTON TANKS

Barrels Capacity	Diameter	Height
500	17'-6 1/4"	11'-9"
1000	20'-3"	17'-6"
2500	27'-9"	23'-3 1/2"
5000	35'-3"	29'-0 1/2"
10000	49'-8"	29'-0 1/2"
15000	61'-0"	29'-0 1/2"
25000	78'-9"	29'-0 1/2"
37500	96'-3 1/2"	29'-0 1/2"
55000	117'-0"	29'-1"
80000	117'-0"	41'-10"

HORTONSPHEROIDS

Barrels Capacity	Diameter	Height
2500	32'-7"	25'-3"
5000	41'-7"	32'-6"
10000	53'-0"	39'-5"
20000	66'-8"	48"-0"
80000	136'-0"	40"-6"

HORTONSPHERES (for liquids)

1500	25'-6"	.....
5000	38'-0"	.....
7500	43'-9"	.....
10000	48'-0"	.....

Annual Savings Possible with WIGGINS ROOFS

Working Tanks					Rundown Tanks				
Bbls. pumped per day	Kind of oil pumped	Loss from Gas-tight Tanks (bbls.)	Loss with Wiggins Floating Roofs (bbls.)	Annual Savings in Barrels	Bbls. pumped per day	Kind of oil pumped	Loss from Gas-tight Tank (bbls.)	Loss with Wiggins Floating Roofs (bbls.)	Annual Savings in Barrels
5000	Gasoline	3250-4855	155	3100-4700	1000	64 A.P.I.	1504	44	1460
10000	Gasoline	6500-9710	300	6200-9410	1000	58-60 A.P.I.	1210	30	1180
5000	Crude	1810-2310	110	1700-2200	1000	54 A.P.I.	756	26	730
10000	Crude	3000-4500	150	2850-4350					

CHICAGO BRIDGE & IRON WORKS

Cleveland.....2206 Midland Bldg.
Houston.....2919 Main Street
Tulsa.....1407 Philcade Bldg.
New York....3145 Hudson Terminal Bldg.
Philadelphia 2614 "1616" Walnut Street Bldg.
Boston.....1516 Consolidated Gas Bldg.
Chicago.....2125 Old Colony Bldg.
Detroit.....1513 Lafayette Bldg.
Birmingham.....1534 Fiftieth St., N.
Dallas.....1239 Burt Bldg.
San Francisco.....1060 Rialto Bldg.
Seattle.....4324 Smith Tower
Los Angeles.....1322 Pacific Mutual Bldg.
Havana, Cuba.....Apartado 2507

Plants in Chicago, Birmingham and Greenville, Pa.

less oil allotted to him than the company whose man is a commissioned officer. To some degree, military rank offsets favorable structural position.

The Ellick Botts Economic and Statistical Laboratories, located over the postoffice in Gray Horse, Okla., have just turned out a formula for determining the amount of oil under a lease.

$$\sim K A \theta + P \Omega = \infty \quad \text{vs} \quad Z B T \sim \blacklozenge B k$$

Now, disregarding these factors entirely, we proceed as,

$$\blacklozenge \Delta \theta \rightarrow X \Omega + i \sqrt[3]{\Delta K E} > \left(\sqrt[3]{B \theta \Pi} + \sqrt[3]{\Sigma X} \right) - \sqrt[3]{\ }$$

$$\therefore \int_{\infty}^{\infty} \left(\frac{\blacklozenge \Delta \theta}{X \Omega} \right) i \left(\sqrt[3]{\Delta K E} \right)^{n} + \Delta t - \left(\text{new conception} \right)^{\infty}$$

All the important factors have been considered, discarded and a new set substituted. The derivation of this formula, though comparatively simple, requires some concentration. It is generally known that hyperbolic functions of curvilinear coordinates resulting in differential equations create a set of integrated variables requiring strenuous extrapolated computations. This leads to elliptic functions of the first order, in which rectifications of both amplitude and modulus strain the trigonometric tables to the utmost.

Presently, we are confronted with inversion or perversion and double periodicity in its most malignant form. By the end of the week, as the barometric hypsometry is checked and the aqueous tension is relieved, the reversible reactions have been precipitated, leaving only the metatarsus intact. Psychometric observations may make this condition embarrassing, but Plato relieves the mind with the single word, "Nerts." (Set in Greek please)

There are two factors which must be kept in mind as the deciphering of the formula proceeds. The inventors of this key to the new conception begs the indulgence of those who have retained at least a smattering of the social and other graces they obtained in college, or elsewhere. These factors are obvious in themselves but, like calculus, they have very little use off the campus. Their principal bearing on this problem is one of physical and mental attitude, which differs widely from that of the other factors involved.

Theory and Practice of

VAPOR RECTIFICATION TYPE VAPOR RECOVERY PLANTS

By
Paul M. Raigorodsky*
and Norman K. Rector*

VAPOR recovery processes, employed in refining for the conservation of still, storage, and other vapors formerly lost to the air or burned under the stills as plant fuel, in the first designs "borrowed" the principles and mechanical developments employed long before in the recovery of natural gasoline.

Although details of the problem of recovery of vapors from the two sources may differ, such as in the content of recoverable hydrocarbons, initial vapor pressures to the recovery system, specific gravity of the combined hydrocarbons, and other smaller details, the essentials of the two problems are similar.

Recently, new departures have occurred in the development of vapor recovery systems for refineries, brought about by the increased knowledge obtained from earlier installations, and the application of generally known engineering and physical principles to the specific problems encountered. One of the recent developments is the so-called "Compression-Direct Fractionating Plant," of which a number of installations have been made during the last three years. These units operate on all refinery vapors, from topping and cracking stills, crude and finished gasoline storage, etc. For convenience the term "Vapor Rectification" plant will be used in this article to designate the type of plant under discussion and to differentiate it from the more conventional single stage compression, absorption type.

One of the differences between this type and other types of recovery plants is the fact that, in the former plant, two stages of compression are generally used. A single stage compression plant, such as has been operated in many refineries in absorption plants, appears to many refiners, unacquainted with the newer type of plant design, to be the more economical; such economy applies only to the cost of compression, and does not take into consideration other advantages of the "Vapor Rectification" type of plant.

The vapor rectification type plant referred to is illustrated in flow diagrams "A" and "B". The plant consists essentially of a compression unit and a recovery stabilizer system. The primary purpose of the compression unit is to raise the pressure of the vapors under treatment to the pressure of the recovery stabilizer, and not for gasoline recovery by the more common compression process.

In this system the gas from

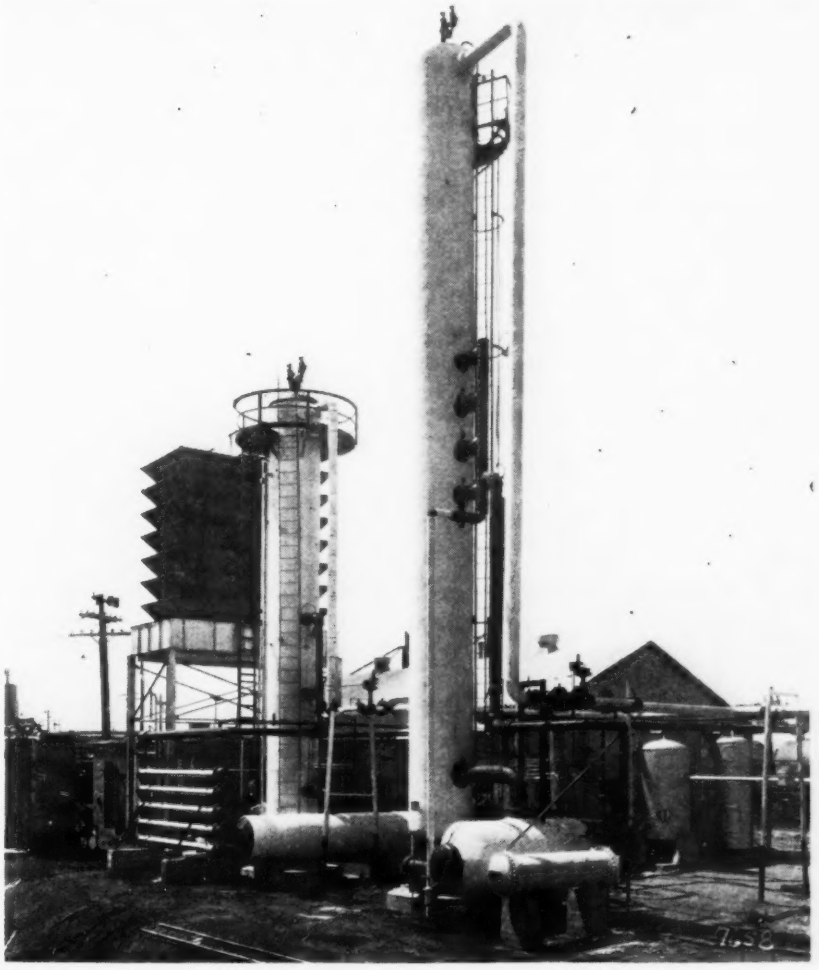
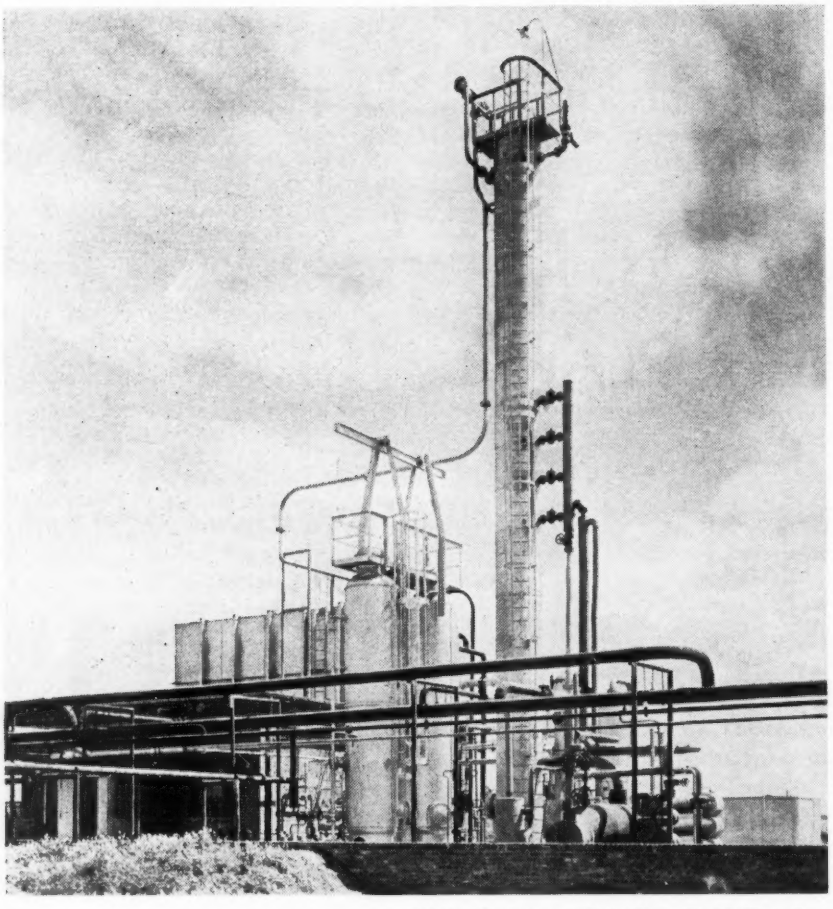


Fig. 1—View of a compression type vapor recovery plant as illustrated in flow diagram "A," Fig. 3

*Petroleum Engineering, Inc., Tulsa, affiliated with Arthur G. McKee & Co.



Photo, Courtesy of Arthur G. McKee Co.

Fig. 2—Gas Recovery and Stabilizer Unit in the refinery at Elwerath, Germany, operating entirely on German crude

the high stage is sent, at the temperature of the compressor outlet, direct to the fractionating tower, for rectification of the entire body of the vapors. An intercooler is employed, when two stages are used, from which liquid is obtained, but this is purely incidental to the operation. This intercooler is comparable to the gas coolers which precede an absorption plant.

Recovery and Stabilizing System

The recovery-stabilizer system is similar to an ordinary natural gasoline stabilizer consisting of the usual column and reboiler, heat exchanger, gasoline cooler, reflux condenser and controls. As with an ordinary stabilizer the principal controls are: pressure regulator, reboiler temperature controller, feed and reflux volume controllers. The principal difference between the system and the ordinary stabbilizer is the provision for admission of vapor as well as liquid feed to the column and the relative size of the component parts.

Sufficient capacity is provided in some of these installations that unstable casinghead gasoline purchased by the refinery may be added to the liquid feed and stabilized during the recovery process. The resulting stabilized casinghead gasoline is recovered, mixed with the vapor recovery gasoline.

When the plant is operated only as a vapor recovery plant the liquid feed consists of the gasoline condensed in the intercoolers of the compression plant. This gasoline averages between 70 and 80 per cent of the final gasoline product in liquid volume, but all of this liquid feed does not show up in the finished gasoline since it is an unstable gasoline and propane and lighter fractions must be eliminated.

In some of these installations the liquid feed also consists of condensed debutanizer overhead product. This is likewise unstable gasoline, containing a comparatively large portion of propane and lighter hydrocarbons. The recovery column liquid feed is pumped from a surge tank in the usual manner, passing through a heat exchanger where heat is received from the finished gasoline leaving the system.

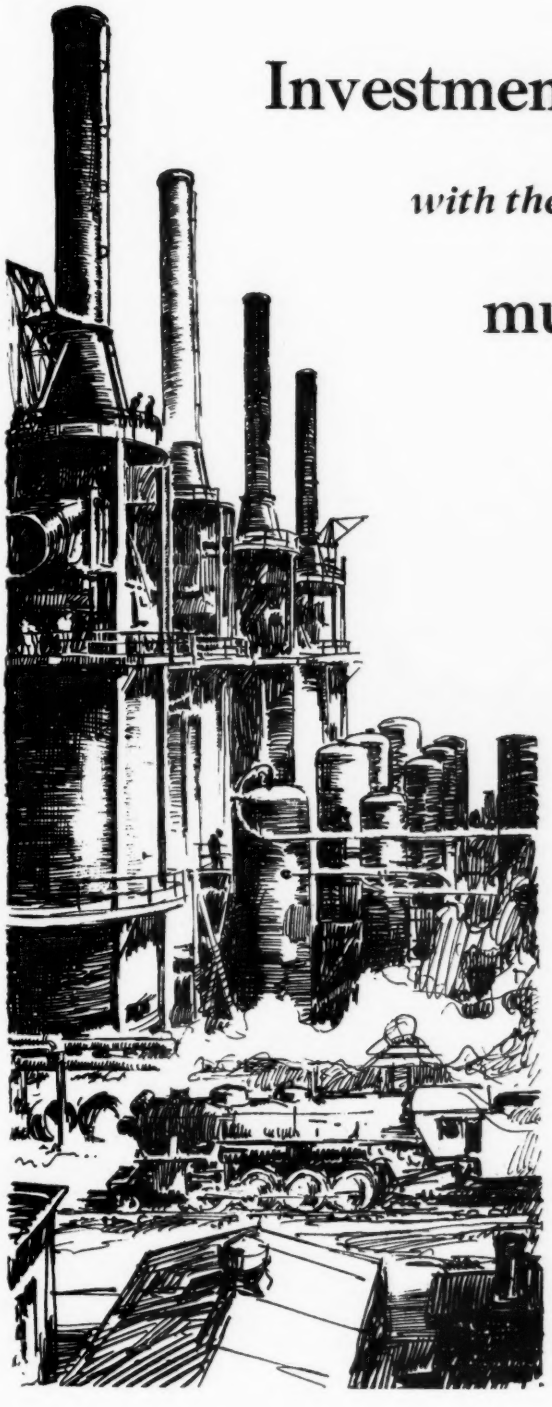
The total feed to the fractionating tower consists, then, of two streams; hot liquid from the exchanger containing principally the desirable heavier hydrocarbons but also containing undesirable lighter fractions and hot vapors from the compressor containing principally the lighter gas hydrocarbons but also containing desirable hydrocarbons. These two streams are brought together and intimately mixed just before entering the column. The result of this mixture is the first step in recovery. The lighter hydrocarbons tend to leave the liquid and enter the gas mixture while the heavier gasoline hydrocarbons tend to leave the gas mixture and enter the liquid.

When the combined gas and vapor feed enters the column the portion in the liquid state starts downward through the stripping section of the column where the lighter fractions are removed from the gasoline as in an ordinary stabilizer. The portion of the feed entering the column in the vapor state rises immediately through the rectifying section. The desirable gasoline fractions are recovered from this rising vapor stream by the downward flow of reflux. The residue gas leaves the top of the column with the evaporated reflux and passes to the reflux condenser system.

The condensed reflux and residue gas pass from the reflux condenser to a separator where the reflux is trapped and returned to the column by a reflux pump. This reflux pump is controlled by an orifice meter controller, a constant reflux rate being maintained.

From the separator the residue gas passes through a back pressure regulator to the refinery fuel system.

The recovered gasoline product is withdrawn from the reboiler and passes through the heat exchanger to the gasoline



Investment in refinery equipment

with the present abnormally low material costs

must show large returns

Plants for the production of high anti-knock gasoline from crude, gas oil, residuum or naphtha, can be installed now at costs per barrel of production which are exceptionally low.

Such plant investments, in addition to insuring profitable operation, will carry low fixed charges and reserves for depreciation.

THE M. W. KELLOGG COMPANY

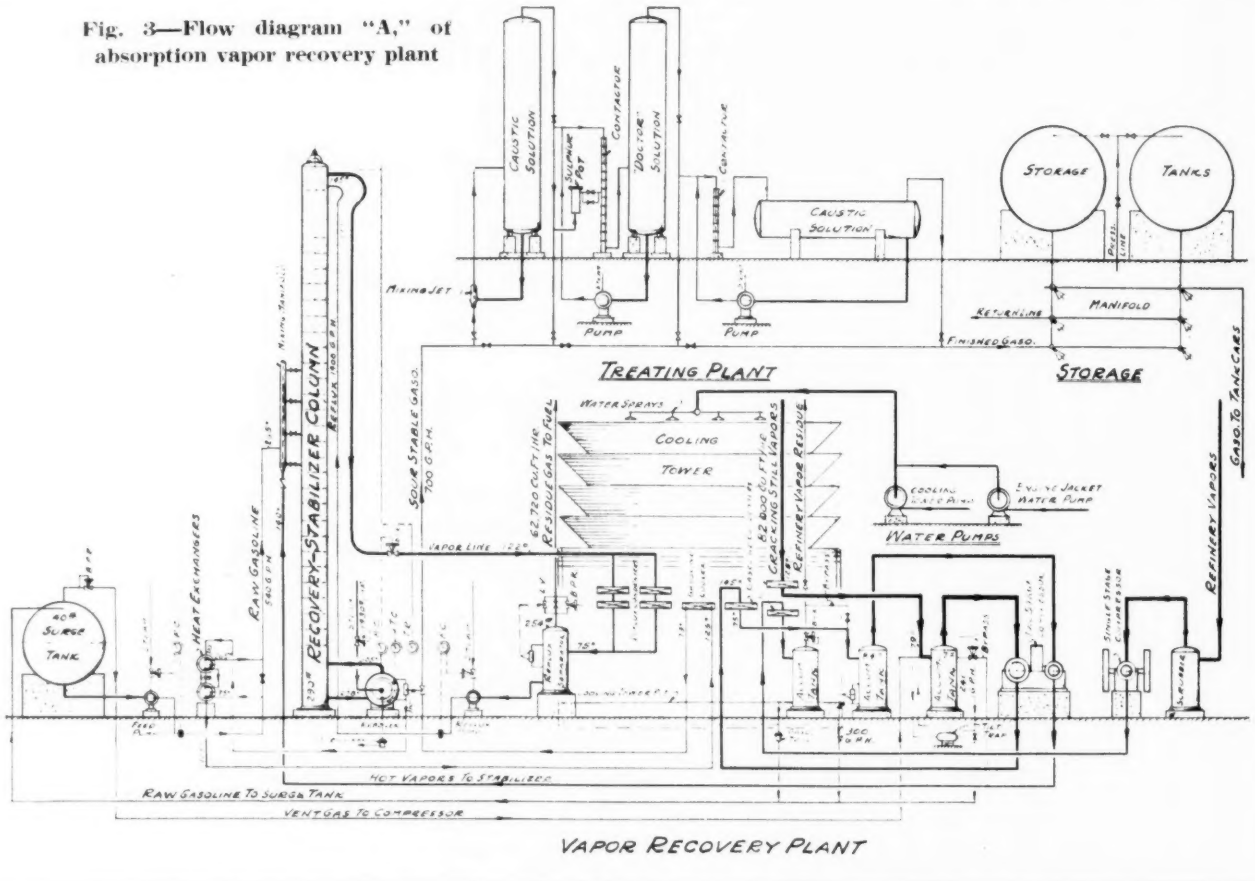
225 Broadway — New York, N. Y.

Los Angeles, Cal., 1031 So. Broadway
Tulsa, Oklahoma, Philtower Building

KELLOGG

Kellogg products include Cross, Holmes-Manley, deFlorez and Tube and Tank cracking units, absorption plants and pipe stills. Pressure vessels for the Power, Refinery and Chemical Industries. Power plant and Industrial piping. Pacific Hot Oil Pumps, Radial brick chimneys. Plastic Refractories.

Fig. 3—Flow diagram "A," of absorption vapor recovery plant



cooler and then to the storage tanks or treating plant.

Recovering Gasoline from Vapor Mixtures by Fractionation

The recovery of gasoline from vapors in a vapor rectification plant is effected by fractionation which, when applied to vapor recovery, is entirely different from absorption. As has already been mentioned, the stripping section of a recovery stabilizing column functions in exactly the same manner as in an ordinary gasoline stabilizer. The pressure throughout the system is higher and this higher pressure is accompanied with higher temperatures near the bottom of the column, but in the section of the column above the feed point higher temperatures than in the ordinary stabilizing column do not prevail due to the partial pressure effect of the greater proportion of methane and ethane present.

The methane, and to some extent the ethane, does not enter into the fractionating problem in any great degree but causes an additional condenser heat load. It is due to the partial pressure effect of methane and ethane that the higher operating pressures are necessary. This operating pressure must be such that reflux may be condensed from the residue gas leaving the system when all the desirable fractions have been extracted from this gas.

If this residue gas were to consist principally of propane, the operating pressure required would be substantially the same as the operating pressure required in an ordinary stabilizer but if this residue gas is one-half propane and one-half methane, the operating pressure required would be practically twice as great.

When the conditions required to condense reflux in a system of this type have been obtained by raising the condenser pressure and reflux is returned to the column in sufficient volume for the particular fractionating job, the descending reflux through the column will strip the desirable gasoline fractions from the rising vapors just as in any other fractionating tower; and will do so as long as the reflux is in sufficient quantity and does not itself contain the desirable fractions but lighter ones. This stripping of the desirable fractions from the rising vapors is entirely different from the absorption process where the absorption medium is composed of hydrocarbons much lower in vapor pressure than the recovered fractions.

In the case of absorption, the absorption medium is a liquid of extremely low vapor pressure and the liquefaction of the heavier fractions in the gas is effected by these heavier fractions entering the liquid mixture and building up the vapor pressure of that liquid mixture to approach the pressure under which the absorption takes place.

In the separation of liquid fractions from a vapor mixture by fractionation the descending liquid stream has a vapor pressure higher than the fractions to be recovered, therefore, when the descending liquid and rising vapors are intimately mixed on the rectifier trays the conditions of equilibrium are not satisfied until the heavier

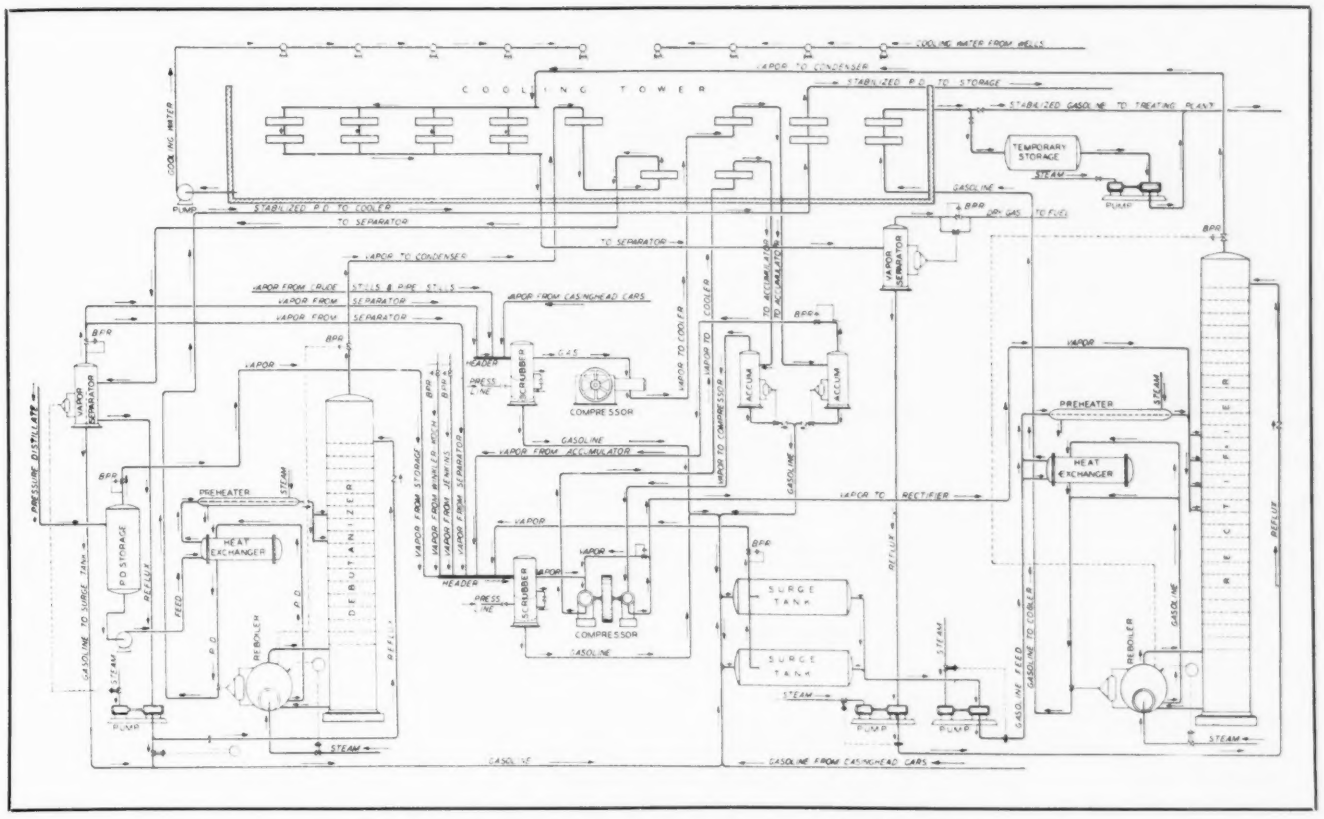


Fig. 4—Flow diagram "B," of vapor rectification plant

fractions in the vapor replace the lighter fractions in the liquid and the lighter fractions in the liquid replace the heavier fractions in the vapor. This, of course, is the usual fractionation process and should not be confused with absorption.

The fundamental problem of recovering gasoline fractions from vapor by rectification is supplying reflux to the column where this recovery is to take place. This reflux must consist not of the hydrocarbons to be recovered or any heavier hydrocarbons, but of hydrocarbons lighter than those to be recovered. If the reflux contains some of the heavier gasoline fractions, these fractions will be partially lost in the evaporation of reflux in the top portion of the column.

From the standpoint of fractionation the problem of the rectifier unit is more simple than the problem involved in the separation of stable gasoline from the lighter fractions in the ordinary natural gasoline stabilizer unit. In both cases we are dealing with approximately the same bottom product, but, in the vapor rectification plant, the overhead product has a higher average vapor pressure and therefore is easier to separate from the stable gasoline. The fractionation cut required is not generally quite so sharp since, in the recovery column, a larger portion of the butane existing in the feed is taken overhead. All the butanes contained in vapors enter the column and no previous elimination of a portion of the butanes has occurred as in the case of an absorption plant stabilizer.

Reflux Condensation and Operating Pressure

Since the problem involved in this type of recovery plant is essentially the problem of obtaining reflux for the column, the possibilities under any given set of conditions depend entirely upon the composition of the waste gas. This makes the system particularly suitable for the recovery of gasoline from refinery vapors and other rich gases.

Assuming gas of a given composition and further assuming that a portion of the butanes and all propane and lighter fractions are to be taken overhead in the recovery column, the pressure at which condensation of reflux may be obtained at a given temperature depends on the amount of butane taken overhead in the system. The pressure at which the system may be operated when taking substantially all the butanes overhead will be found to be much lower than the pressure required for a substantially complete recovery of butanes. This fact is illustrated in an accompanying chart which shows the pressure at which the recovery system condenser must be operated when treating a gas of the following composition:

	Mol. %
Methane	30.2
Ethylene	3.0
Ethane	16.9
Propylene	5.3
Propane	16.2
Iso-Butane	1.4
Butylene	6.2
Normal Butane	8.3
Iso-Pentane	3.1
Normal Pentane	5.5
Hexanes and Heavier	3.9
	100.0

This is an analysis of the gas entering the recovery plant, illustrated on flow sheet "B," at the time the data were taken. The chart shows the operating pressures required in the condenser, when the condenser temperature is maintained at 75 degrees F., from a butane-free

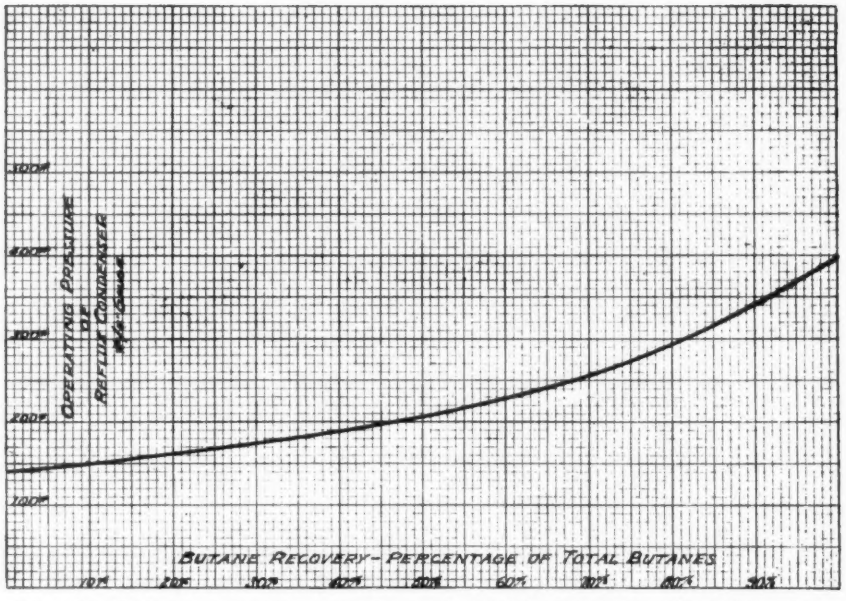


Fig. 5—Butane recovery percentage of total butanes as affected by the pressure of the reflux condenser

gasoline to 100 per cent recovery of butane. This chart applies only to the recovery possibilities when treating gas of this given composition. Allowance is made for variation from the gas laws and engineering safety factors are included. The condenser pressure required for any given percentage butane recovery depends on two factors: The composition of the gas is one factor, that is, the ratio of the excess butane and propane present, to the lighter, relatively non-condensable ethane and methane portions. The second factor is the temperature of the condenser water available, which controls the temperature to which the condenser may be cooled practicably, with any given set of conditions or any particular design or size of condenser installation.

Vapor Rectification Systems and Absorption Recovery Systems Compared

It is possible by designing for the required conditions, to obtain as high a percentage of the desirable fractions by the vapor rectification method as by any other method in commercial use today. It is a scientific fact that perfect fractionation is impossible but it is also a fact that fractionation may be so near perfect that the best testing methods cannot detect the discrepancies. This applies to the separation of gasoline fractions from a vapor mixture just as well as to other fractionation problems and to absorption.

From a thermal efficiency standpoint the vapor rectification type plant makes a much better showing than an absorption plant when treating rich vapors. This is due to the fact that no oil circulation or distillation of product is required. The savings thus obtained may be enumerated as follows:

(1) Heat required to raise oil temperature for distillation, lost in oil coolers.

(2) Heat required to raise temperature of and evaporate raw gasoline in still, lost in condensers.

(3) Heat required to raise temperature of and evaporate still reflux, lost in condensers.

(4) Heat or other energy required for recycling, reabsorption, or recompression of still vapors for complete recovery.

(5) Energy required for circulation of absorption oil.

(6) Energy required for still reflux pumping.

(7) Energy required for the circulation of cooling water for distillation unit condensers and oil coolers.

The above energy savings are only partially offset in the vapor rectification plant by the extra compression energy.

The vapor rectification plant does not even require heat for the evaporation of waste products since the liquid to column is less in actual volume than the product. The heat of compression from the second stage is not wasted but supplies useful heat to the fractionating column.

In general, the economic comparison of the two systems depends on the following factors:

(1) Necessary operating pressure.
Composition of gas.
Butane recovery required.

(2) Value of gas.
Compressor fuel.

(3) Cost of heating medium.
Steam.

(4) Possibility of utilizing waste heat.
Hot oil from refinery.

(5) Cost of cooling water.
Stream or lake.
Wells.
Cooling tower.
Quantity available.

(6) Obtainable cooling water temperature.

(7) Cost of absorption oil.

Theoretically the vapor rectification type plant is always more efficient than the compression, absorption and stabilization system. Other factors, governing the economics of the situation sometimes make the absorption system advisable. It may be stated, however, that in any installation where excessive pressures are not required and fuel and cooling items may be considered in an economic balance, the vapor rectification is more desirable.

Factors such as high propane content of gas, causing extra and useless loads in an absorption plant, are a positive benefit to the operation of the vapor rectification plant.

There is very little difference in the initial investment of the two systems. The difference that does exist is in favor of the vapor rectification system for plants of the type herein described but the difference in initial cost is not so great as it would seem at first. The additional compressor horsepower, and higher working pressure largely offset the advantages in first cost of the vapor rectification system.

Depreciation is considerably lower with the vapor rectification system, especially if non-corrosive fitted compressors are used for refinery vapors.

The following is a tabulation of the utilities required for the plant illustrated on flow sheet

TWO FISTS

You need both of them in today's fight for business

The Dubbs refiner has two fists He can make anti-knock gasoline from any charging stock at lowest cost

He can sell it as Dubbs cracked gasoline at the highest market price

He can cash in twofold on his Dubbs license contract and his own reputation

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor

"B," compared to an absorption plant designed to treat the same gas and recover the same gasoline product:

Utilities

(1) Vapor rectification recovery plant by actual test and checked by theoretical computations.

(2) Compression and absorption recovery system with stabilizer. 1 stage of compression, 17 to 84 pounds. Absorption at 84 pounds, 30 G. P. M. absorption oil (42° A. P. I.).

Fractional distillation of absorbed product at 40 pounds.

Reabsorber for uncondensed still vapors.

Stabilizer for raw compression and absorption gasoline.

	(1) Vapor Rectification Plant	(2) Absorption Plant
Compression	H. P.	H. P.
Compressor Load	200	100
Cooling Tower Load	Btu/Hr.	Btu/Hr.
Gas Coolers (Low Press.)	374,500	374,500
Gas Coolers (Int. Press.)	478,000	478,000
Oil Coolers		485,000
Gasoline Condensers		1,323,000
Rect. Reflux Condenser	1,078,000	780,000
Gasoline Cooler (Stab. Gasoline)	102,000	102,000
	2,032,500	3,542,500
	G. P. M.	G. P. M.
Cooling Water @ 10 Degree Rise	406	710
Compressor Cooling Water	100	50
	506	760

For the purpose of comparison between utilities of vapor rectification recovery plant and absorption recovery system, all items of utilities are reduced to equivalent steam.

Gas engine driven compressors are used. Fuel consumption is assumed 10,000 B.t.u.'s per H. P. hour. Boiler efficiency is assumed 70 per cent (or less). Steam at 125 pounds is assumed to represent 1012 B.t.u./pound. I. E. 100 compressor H. P.=100 x 10,000=1,000,000 B.t.u. fuel. 70% 1,000,000=700,000 B.t.u. heat in steam. 700,000÷1012=690 pounds/hour steam.

Cooling water is assumed to be pumped against a head of 60 feet. Turbine driven centrifugal water pumps are assumed with a pump efficiency of 65 per cent and a turbine water rate of 40 pounds H.P./Hr. I. E. 100 G. P. M. cooling water=100 x 8.33 pounds x 60 feet÷33,000=1.515 Hyd. H. P. 1.515÷.65=2.33 turbine H. P. x 40=93 pounds/Hr. steam.

Total Steam (or Equivalent) lbs./Hr.

	Vapor Rectification	Comp. Abs. Plt.
Process Pumps	250	475
Distillation Unit	——	1900
Rectifier Unit	1430	1150
Compression		
Equivalent Steam	1380	690
Cooling Water		
Equivalent Steam	470	710
Total for Comparison	3530*	4925*
	100%	140%
	71½%	100%

*lbs./Hr. @ 125 lb.

Flow Diagram "A"

The flow diagram "A" represents a complete stabilization and recovery system installed in one of the refineries in the Mid-Continent area. This plant consists of a debutanizer unit, compression plant, rectifier unit and treating plant. The treating plant is not illustrated on the flow sheet.

This plant was described in an article in the Sept. 18, 1930 issue of the *Oil and Gas Journal* by F. A. Deering, superintendent of the Kanotex Refining Co.

Flow Diagram "B"

Flow Diagram "B" is of a recovery plant similar in principle to that shown on flow diagram "A." No debutanizer unit is used in this plant. A sufficiently high temperature is maintained at the condenser in the cracking plant to limit the final condensation of vapors so that the propane and lighter content of the pressure distillate condensed is quite low.

The vapors from the cracking unit come to this recovery plant relatively hot and are cooled before being admitted to any compression equipment. A small compressor is provided in this plant for the boosting of refinery crude still and tank vapors up to the pressure required for mixture with the cracking plant vapors.

This small machine is provided with a gas cooler and so connected that the discharge may be either passed through gas coolers to the main recovery system or to the refinery fuel system. When operated by the latter method, the discharge pressure is carried somewhat higher and most of the available gasoline is recovered purely by compression. This alternate method of operation is provided so that, when these vapors are extremely corrosive, they may be kept out of the main recovery plant.

Theoretical Design and Practice

The following is a group of data on theoretical design computations applied to the conditions of flow diagram "B" and compared to the actual test data. Samples were taken of the rich gas, residue gas, reflux and gasoline product. At the time these data were taken the small compressor was not operating which somewhat simplifies the computations involved since the plant was treating vapors from only one source. The analyses shown are of "snap" samples and do not necessarily represent the average compositions throughout the period of time necessary to record other data, however, since there were no interruptions in the plant operation, these analyses may be considered fairly representative. The computations proceed from the following data:

Rich Gas

Quantity by orifice meter—1,965,000 cu. ft. per day.

The theoretical minimum pressure at which the condenser may operate and condense reflux for the system, when making the separation assumed, is the vapor pressure of the reflux, or 244 pounds absolute.

In practice a pressure in the condenser slightly higher than the theoretical is actually required. This may be accounted for by the variation in percentages of unsaturates in the gas, by deviation from the gas laws

Composition by Fractional Analysis

(This is the analysis already given, simplified for easier computations)

	Mol. %	Cu.Ft. per Hr.	Gals. per Hr. Gasoline Fractions
Methane	30.2	24,750	
Ethane and Ethylene	19.9	16,320	
Propane and Propylene	21.5	17,630	
Butanes	15.9	13,040	411
Pentanes and Heavier	12.5	10,260	416
	100.0	82,000	827

	Analysis of Reflux Sample by Fractional Distillation Reflux Mol. %	Vapor Pressure @ 75° F.		Residue Gas Theoretical Mol. %
Methane	2.7 ÷ 100 × 4100 lb. = 110.8 × 100 / 271.7			= 40.8
Ethane	12.5	650	81.2	29.9
Propane	46.0	140	64.4	23.7
Butane	37.4	40.5	15.1	5.526
Pentanes plus	1.4	13	.2	0.074
	100.0		271.7	100.000

Theoretical Product Composition

(Based on the assumption of perfect fractionation)

Actual gasoline recovered during test	700 Gals. per Hour	
Pentanes and heavier contained in rich gas	416 Gals. per Hour	
Theoretical butane recovery	284 Gals. per Hour	
Total butanes in rich gas	411 Gals. per Hour	
Theoretical butanes recovered	284 Gals. per Hour	
Theoretical butanes in residue gas	127 Gals. per Hour (= 4020 cu. ft./hr.)	

Theoretical butane recovery per cent = 284 / 411 = 69%

Theoretical gasoline composition:

Butanes	284 Gallons	40.5% by liquid volume
Pentanes and heavier	416 Gallons	59.5% by liquid volume
	700	100.0

Theoretical Residue Gas Composition

(Based on Theoretical Composition of Recovered Gasoline)

	Cu. Ft. Per Hr.	Mol. %
Methane	24,750	39.4
Ethane and ethylene	16,320	26.0
Propane and propylene	17,630	28.1
Butanes	4,020	6.5
	62,720	100.0

Theoretical Condenser Pressure Required to Condense Reflux

Theoretical Reflux (Condensate) Composition

Reflux condensate is a liquid in equilibrium with residue gas.

Mol fractions of components in liquid are proportional to mol fractions of components in vapor divided by their respective vapor pressures.

	Residue Vapor	Vapor Press. @ 75° F.	Ratio in Liquid	Liquid Mol. %
Methane	39.4 ÷	4100#	= .0096 × 100 ÷ 4105 =	2.34
Ethane	26.0	650	.0400	9.76
Propane	28.1	140	.2004	48.90
Butane	6.5	40.5	.1605	39.00
	100.0 Mol %		.4105	100.00

The minimum pressure at which reflux of this composition may be condensed is the vapor pressure of the reflux:

	Reflux Mol.%		Vapor Pressure @ 75°F.		Partial Pressure Liquid Fractions
Methane	2.34	x	4100	=	96.0 lb.
Ethane	9.76		650		63.5
Propane	48.90		140		68.5
Butane	39.00		40.5		16.0
	100.00				244.0 lb. absolute

and by the fact that equilibrium is never quite complete in the condenser.

The condenser pressure at the time of the test was 254 pounds gauge (268.4 pounds Absolute).

	Pounds
Actual Pressure	268.4
Theoretical Pressure	244.0
Deviation	24.4 = Approx. 10% Theoretical

This deviation was allowed in the curve showing butane recovery possibilities at different pressures.

Summary

Comparison of Theoretical and Actual Compositions.

Residue Gas Composition

(1) From Theoretical Recovery Composition

(2) From Actual Reflux Composition

(3) From Fractional Analysis of Snap Sample.

Mol. %	(1)	(2)	(3)
Methane	39.4	40.80	39.3
Ethane and Ethylene	26.0	29.90	25.7
Propane and Propylene	28.1	23.70	26.1
Butanes	6.5	5.53	8.8
Pentanes and Heavier	Trace	0.07	0.1
	100.0	100.0	100.0

Reflux Composition

(1) From Theoretical Recovery Composition

(2) Actual Reflux by Analysis of Snap Sample

(3) From Analysis of Residue Gas

Mol. %	(1)	(2)	(3)
Methane	2.3	2.7	2.1
Ethane and Ethylene	9.8	12.5	8.6
Propane and Propylene	48.9	46.0	40.5
Butanes	39.0	37.4	47.2
Pentanes and Heavier	Trace	1.4	1.6
	100.0	100.0	100.0

Reflux Quantity 1400 Gallons per Hour.

Gasoline Product Composition

(1) Theoretical Composition Based on Recovery Quantity

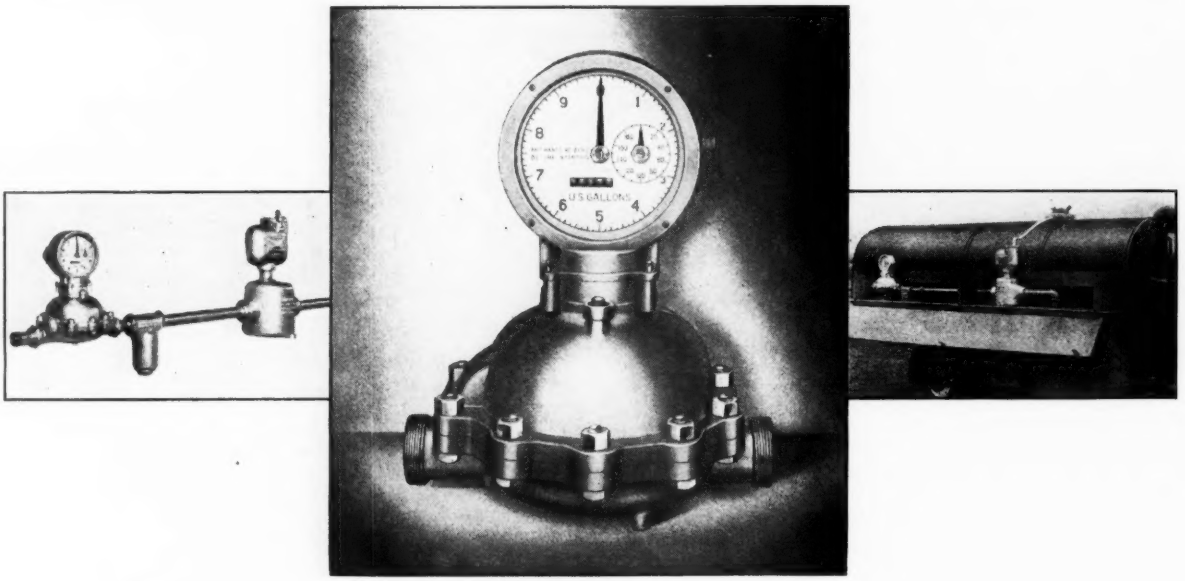
(2) Analysis of Snap Sample from Stream

(3) Theoretical Based on Rich Gas and Residue Gas Analyses

Liquid Vol. %	(1)	(2)	(3)
Butanes	40.5	33.0	36.3
Pentanes and Heavier	59.5	67.0	63.7
	100.0	100.0	100.0
Equivalent Gals. per Hr.	700.0	620.0	650.0

Examining the comparison of

NEW RUGGEDNESS— ADDED LIFE in this PRACTICAL TANK TRUCK METER



A practical tank truck meter on a pump-equipped truck will earn fine dividends. It permits delivery of small or large amounts of oil with maximum speed, no spilling and with unfailing accuracy. It protects the oil company, truck driver and customer alike. The assurance of honest measure builds confidence and gains new business.

But the meter must be *practical.* It must stand the gaff of daily service and ask no favors. It must run without appreciable wear, withstand a trace of dirt without clogging, must not stick with gum. It must be reliably accurate in service as well as on special tests. And the investment must be small, to earn maximum dividends.

The *NEW IMPROVED* NIAGARA TANK TRUCK METER fills every requirement. New hardened works of nickel-bronze and steel, with extra-hard bearings insure long life, unchanging accuracy. It has unusual resistance to dirt and gum. You don't have to "baby" the new Niagara Meter—it's rugged and tough. And you are due for a pleasant surprise when you hear the price.

Are you interested? Send the coupon, get the glad news!

NIAGARA TANK TRUCK METERS

BUFFALO METER CO., Buffalo, N. Y.
Please tell me more about the new improved Niagara Tank Truck Meter, for pump-equipped trucks. No obligation, of course.

Name .....

Address .....

.....

Built by the makers of
Niagara Air Release Valve
Niagara Trap Strainer
Niagara Bulk Station Meters
Niagara Grease Meters
Buffalo Gasoline Retailing Meters
Niagara Oil Meters

BUFFALO METER CO.
2889 Main St. Buffalo, N. Y.

theoretical and actual compositions through the plant, the similarity is quite obvious and the variation is no more than should be expected when "snap" samples are used even if the gas laws held perfectly.

Residue composition Nos. 1 and 2 are probably nearer to the average under the operating conditions than the analysis of sample (No. 3) since No. 3 could not be entirely correct unless considerable ethane and propane were left in the gasoline product and this product was less than 700 gallons per hour. This product was recovered at the rate of 700 gallons per hour for several hours during taking of data. The richest residue gas analysis (No. 3) indicates a recovery of pentanes and heavier of 99.4 per cent. This pentane and heavier recovery is higher than could be expected even with a very good absorption plant.

While the reflux contains traces of pentanes, a very small percentage of pentanes in the residue gas will cause a much larger proportion of these heavier fractions in the reflux. The reflux composition, therefore, makes a very good indicator of plant performance, with loss indications magnified. Anything less than 2 per cent pentanes and heavier in the reflux indicates a very high recovery efficiency for the heavier gasoline fractions.

It is assumed that the computed gasoline composition is more nearly correct than the analysis of a "snap" sample taken from the stream which may be in error due to several possible reasons, i.e., sample is indicative of composition at moment of taking sample only, possibility of control equipment having acted at approximately time of sampling, possibility of leakage in transport to laboratory or in removing sample from "bomb."

The above is further verified by the fact that 700 G. P. H. of analysis composition is not contained in the rich gas unless the rich gas analysis is in error, which is less likely, since other factors check rather closely.

If analysis were correct production would have been—Pentanes plus: 416 Gal.—2 (In residue gas) 414 Gals. =67% total.

414÷.67=620 Gals. — possible production.

But production was actually 700 Gals.

Vapor Rectification System Operation

Among the advantages of the vapor rectification process of vapor recovery are the facts that it is the simplest and most easily operated efficient system used at present for this purpose. The very careful adjustment of operating conditions necessary for the efficient operation of absorption and distillation units is eliminated by the simplification of the vapor rectification plant. Only about half the number of control and recording instruments are required for the vapor rectification plant, as compared to that in an absorption plant of equivalent size and capacity.

The attention necessary for the operation of the compression equipment used with each type of plant is practically the same unless the vapor rectification plant is compared to an absorption plant where no compression is employed. The latter becomes so inefficient that results obtained are not comparable, where refinery vapors are available at relatively low pressures.

Under normal conditions when the customary butane recovery is desired, and where the rate of vapors to the system is normally constant, losses of the heavier fractions of refinery vapors are practically impossible, if the following conditions are met in operation. The pressure on the system must be set high enough so that reflux is condensed when obtaining finished gasoline of the desired specifications. Adequate reflux must be pumped into the system, and the reflux rate kept constant.

Pure Oil Co. Completes New Refinery To Operate on Michigan Crude

By H. H. Dronberger*

THE Pure Oil Co.'s new refinery at Midland, Mich. is now completed and ready for operation. Designed and built by Alco Products Co. in conjunction with the engineers of the Pure Oil Co., this refinery, while small, presents numerous interesting features of operation and treatment of materials.

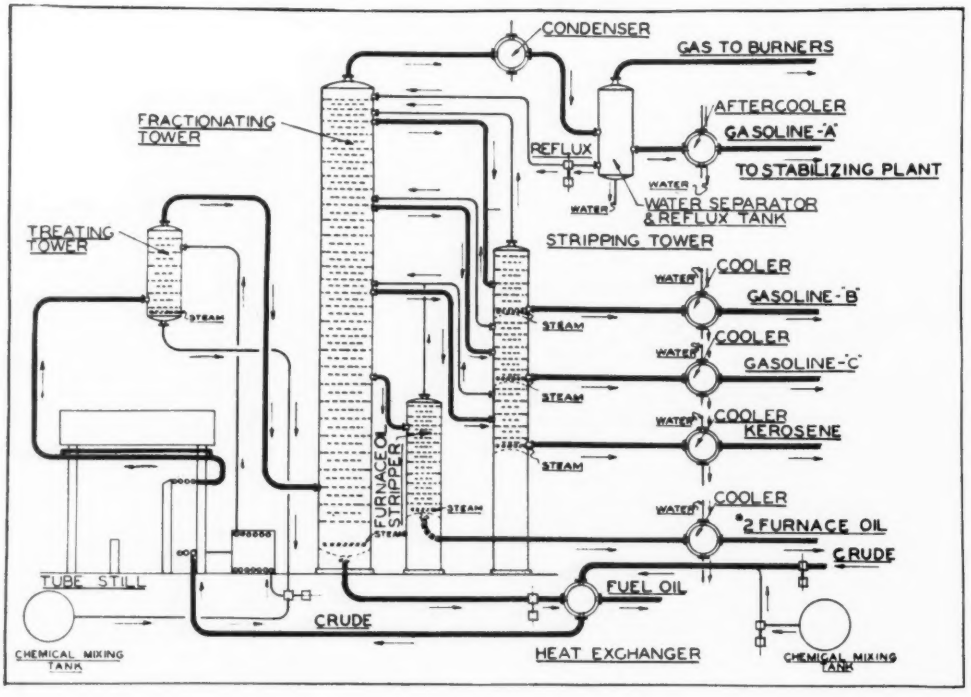
The Midland refinery is located about two miles south of Midland, Mich., on land adjacent to the big plant of the Dow Chemical Co. with whose operation this development is to some extent related. Michigan crude on which the refinery will operate is obtained directly from Pure's 6-inch pipeline which extends from Purtell tank farm to Bay City, Midland lying about midway between these two terminals.

At the present capacity, 3500 barrels per day of Michigan crude will be processed. Following the accompanying flow sheet, crude oil is charged from the crude oil tanks to the tube still through a bottoms heat exchanger, the temperature being raised to approximately 300°F. Before reaching the heat exchanger, a chemical slurry for removal of sulfur compounds is injected into the crude charging line.

Oil and slurry are heated in tube still to about 550°F. and discharged into the bottom of a treating tower of the bubble type. Superheated steam enters at this point and the ascending vapors are intimately contacted with a mixture of oil and chemicals introduced into the top of the tower for further treatment for removal of sulfur compounds.

This oil and chemical mixture is continuously re-circulated through a preheater section installed in the breeching of the tube still. Vapors from the treating tower enter a bubble type fractionating tower where fuel oil bottoms drop out and various gasoline cuts are taken from side and top. No. 2 fur-

*Pure Oil Co.



Flow diagram of new 3500-barrel Pure Oil Co. refinery just completed at Midland, Mich.

nace oil may be taken off as a side cut through a bubble type stripper column, vapors being returned to the main column. Gasoline "B" and "C" and Kerosine are taken off as side cuts through the main stripper column, a three section column of the bubble type.

Kerosine produced has an initial boiling point of about 390° F. and end point of 475°F. Gasoline "B" cut may be so regulated as to produce a gasoline of I. B. P. of 220°F. and end point of 320°F. Gasoline "C" cut will produce a gasoline of 290°F. I. B. P. and 400 end point.

Vapors from the top of the main fractionating column pass through a primary condenser into a water separator and reflux tank from which reflux is circulated back to the tower top. Gasoline "A" stream is taken through an after cooler, and a gas separator to the high pressure stabilizing column where propane and butane and other fractions boiling below 100°F. are eliminated and a stabilized gasoline produced of 100° I. B. P. and 300 end point. Gas from tower relief valves, gas separator and stabilizing plant is delivered to the tube still burners for fuel.

The atmospheric tube still is of standard design, burning either gas or fuel oil, provision having been made for additionl tubes to double the capacity. Heat from the flue gases is utilized in the preheater section described above and also for revivification of spent treating materials.

All fractionating towers and stripper columns are of the latest design bubble plate and cap type. The fractionating tower is 86 feet high and 6 feet in diameter, equipped with 37 bubble trays. All parts of the tower are readily accessible and the patented removable trough bubble trays make cleaning a simple matter. Very close cuts of all products are obtained through the use of automatic control of reflux and liquid levels and introduction of superheated steam into columns for heating and control.

Heat exchangers, condensers and coolers are of the closed type, with floating tube sheets, crude oil and water being used as the exchange medium. Hot water leaving the exchangers is taken directly to the boilers for boiler feed water.

Water for condensing and boiler feed purposes is pumped from the Dow Chemical Co.'s water plant. Water requirements are kept to a minimum by means of an atmospheric water tower over which condensate is sprayed and cooled before being re-circulated through the system.

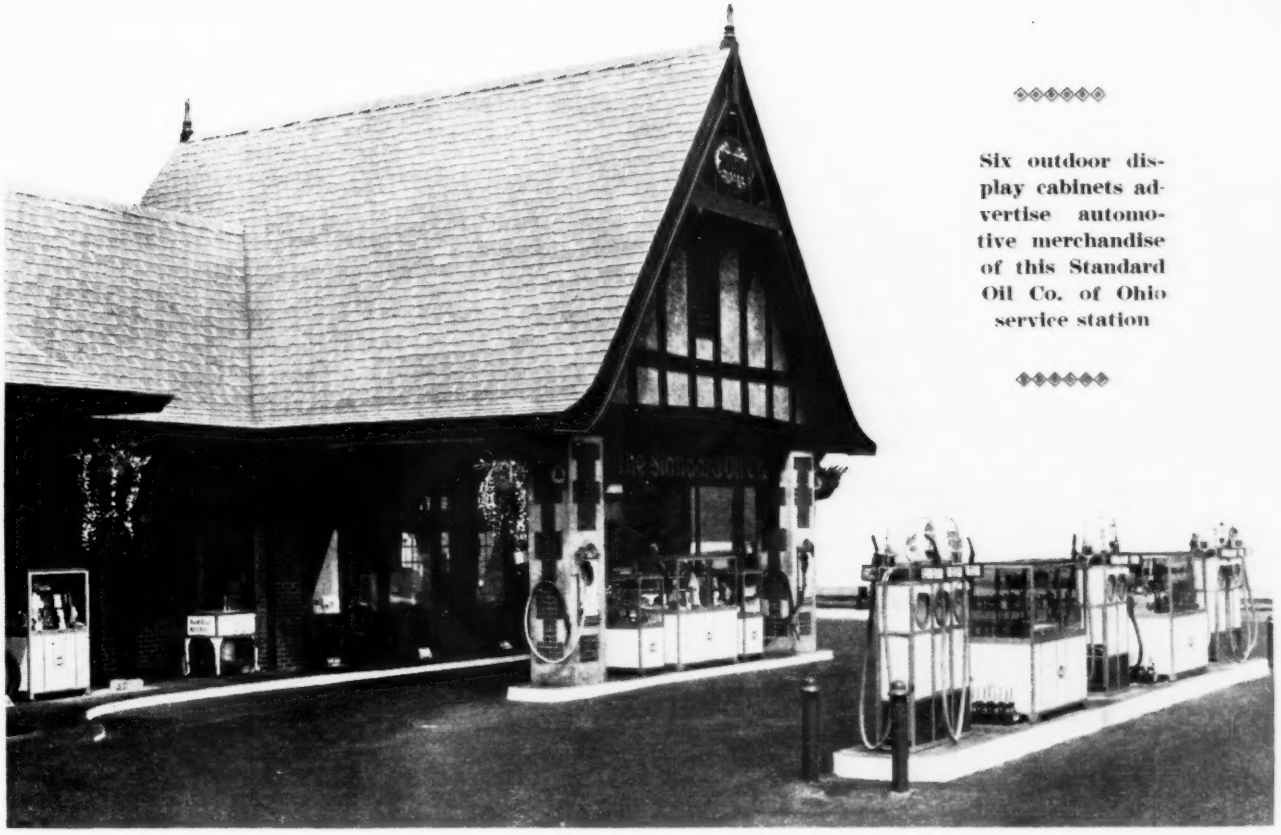
Steam is generated by one Haine, and one Geary, 250 H. P. horizontal return tube boilers. These boilers supply steam at 125 pounds gage pressure mainly for pump operation. One of the features of the plant is the use of exhaust steam from the pumps at 25 pounds gage pressure in the fractionating columns for heating and control of distillation, after being superheated in the tube still.

Crude charging pumps, hot oil pumps and other process pumps are steam driven, while transfer pumps are motor driven centrifugals. Separate transfer pumps have been provided for each product in order to prevent contamination of finished gasolines.

The method used for treating the crude for removal of sulfur compounds is new and was developed solely by the Pure Oil Co. engineers.

Tank car shipments of finished products of local markets which have been developed for the entire output of the refinery, will be handled over the Pere Marquette Railroad along whose siding a 10-car steel tank car loading rack has been constructed. Fuel oil is delivered directly to the Dow Chemical Co. through 4000 feet of 4-inch pipeline.

Automatic control of every operation has made possible the use of a very small operating force. The skeleton personnel is headed by C. M. Ridgeway, superintendent and K. B. May, assistant superintendent.



Six outdoor display cabinets advertise automotive merchandise of this Standard Oil Co. of Ohio service station

Six Outdoor Display Cabinets At One Station

CLEVELAND

SIX outdoor display cabinets at one service station—the latest development in the accessory merchandising plans of Standard Oil Co. of Ohio.

With this array of cabinets the station emphasizes to customers, and passing motorists, that this is a place to buy automotive merchandise. The sign "The Standard Oil Co." indicates a gasoline and oil sales place, and now the large number of cabinets advertises a greater variety of automotive merchandise on sale.

The station having these six cabinets is at Carnegie Ave. at E. 89th St., Cleveland. It has seven lubrication bays, and is on one of the through, heavily travelled streets from Cleveland's east side to the main business district. The station was opened several years ago.

Outdoor display facilities had been at this station, and the total number of cabinets was increased to six early in August.

Two cabinets are on the outer pump island. This island has three gasoline sales units, each unit serving three grades of gasoline. The cabinets are between gasoline units.

Three cabinets are on the inner pump island, between the posts of the station's gabled canopy. One cabinet is of the larger type, as on the outer island, and two are of a smaller type.

The sixth cabinet is on a walk, from the lubrication bays to the station's office, near the entrance to the rest rooms.

The top part of the cabinets are totally enclosed with glass. In the lower section there is space for stock storage. The cabinet tops are plates of porcelain enamel in red. Porcelain enamel panels around the lower section are in white, with a blue trim at the bottom, in keeping with the company's red, white, and blue color scheme.

Merchandise on display has been arranged to concentrate the customer's attention on certain items. On the outer island one cabinet displays radiator merchandise, the other body cleaning materials.

One cabinet has displays of packages of radiator cleaner and radiator cement. The other has packages of top dressing, metal polish, body polish, and touch up enamel.

One of the end cabinets, on

the inner pump island, displays oil cleaner cartridges only. The cabinet on the other end is filled with spark plugs. The center, and larger, cabinet has a display of practically all automotive merchandise sold at the station.

A more elaborate display of automobile cleaning and polishing materials is in the cabinet at the side of the building. This includes dry auto cleaning cloths, spoke brushes, polishing cloth, chamois, automobile polish, and metal polish.

Installation of such a large number of cabinets has aided illumination of the station, company officials found and the lights from the cabinets make the drives brighter from this blaze of light. Many customers commented on the better lighting since the cabinets were installed.

Ohio Oil Co. Builds Attractive Unit-Type, Portable Service Station

FINDLAY, Ohio OHIO OIL CO. is working with a service station building design that will provide portable and adaptable gasoline outlets. Three stations of this type have been constructed.

The station pictured here is in Bexley, a residential suburb of Columbus. It is on highway U. S. 40 across the street from a neighborhood shopping center.

This station can be dismantled and moved to another location salvaging everything except the floor. Adaptability is a feature also. Additional service departments can be added to the present two-lift bay, or in any direction from the octagonal-shaped office.

Walls are of porcelain enamel plates, in Ohio Oil's colors, over a steel frame. There is an exterior and interior wall. Between is an eight-inch space packed with insulating building material for interior temperature control in all seasons.

Around the open sides of the office part of the station is a marquee and a concrete walk, to protect customers entering the station during inclement weather. The marquee is about four feet wide, and the walk about a foot wide.

The ladies' rest room is at the rear of the office part of the building, reached only through an outside door.

The lighting is unique. There are no floodlights. Drives are illuminated from lights behind the company's signs under the marquee, and from the medallions along the roof line of the building. Executives of the company are working now on a new type of lighting effect from the tower.

Lay-out of the station hinges on the central section, housing the office. From the office part, the service departments can be extended in any direction, to conform to the limitations of the property. In the Bexley station, additional departments could be added to the present wing, or, if conditions warranted, a new wing could be added to the rear, fronting the side street.

Ohio Oil Co.'s new type portable and adaptable station, built in a suburb of Columbus, O.

SHELL PRODUCTS

No other Gasoline so closely follows the weather...

WHETHER he drive in tropic heat or arctic cold, over the mountain passes of the Northwest, or through the bottom lands of the South, the American motorist's engine will run smoothly, sweetly all the way . . . so long as he fills his tank at Shell stations.

Shell chemists work to self-imposed standards far more rigid than the requirements set up by the United States Government or the standards in general use in the industry. Shell refineries produce gasoline especially adapted to season, altitude, and driving conditions in the territory *where*, and *when*, it is to be delivered.

Equally meticulous standards govern the production of all Shell products. Every item in Shell's complete line of petroleum products is held to a uniformly high level of quality by precision control, developed to a degree unknown before the advent of the Shell research laboratories.

Specifying Shell, the user is assured unfailingly satisfactory performance no matter *where* he buys, no matter *what* his particular operating conditions.

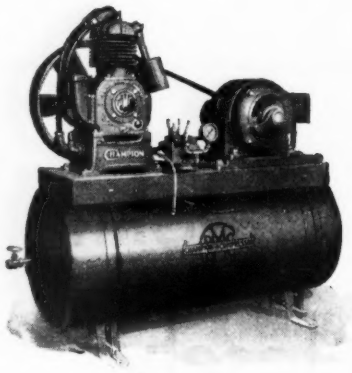
SHELL CRUDE OIL PRODUCTION

Arkansas
California
Kansas
Louisiana
New Mexico
Oklahoma
Texas

SHELL REFINERIES

Arkansas City, Kan.
Coalinga, Calif.
Dominguez, Calif.
East Chicago, Ind.
Houston, Texas
Martinez, Calif.
Norco, Louisiana
Wilmington, Calif.
Wood River, Ill.

Leading the Procession



The first **CHAMPION** Air Compressor was built nearly a quarter century ago, and it is still giving faithful service. Every **CHAMPION** built since then has added to **CHAMPION'S** high reputation for building dependable equipment. Today, **CHAMPION** compressors are in the front line ranks.

Model OE-38 shown above is a two stage compressor. Air-cooled. fully automatic, 60 gal. tank. Displacement 7.2 cu. ft. per minute.

Give your customers the air service they want. Install a **CHAMPION** Compressor!

Ask your dealer or write today for illustrated literature.

CHAMPION
PNEUMATIC MACHY. CO.
8168 South Chicago Ave., Chicago, Ill.

TYPICAL

of scores of letters received each year is . . .

"Editor,
National Petroleum News.
Dear Sir:

Enclosed I am sending you literature describing P..... This interests me but I don't want to take it on without further information. I am hoping that you can tell me something about the product and the company behind it, even though it has not been advertised in National Petroleum News.

Gratefully yours,

...."

REFINERS who do not advertise to the readers of National Petroleum News should find a moral in this.

Marketer Identifies His Merchandise With "Certified Products" Seal

WHENEVER a marketer changes gasoline or oil brands he is in a difficult situation. For years he has been advertising the merits of certain brands. Suddenly there is a change. New globes and signs are up at the station, and some explaining seems necessary in reference to the previous and present brands.

To overcome such difficulties the Parks-Klay Co., Lima, O., is placing its own identification on all merchandise sold. Brand names on gasoline, oil, tires, and accessories are exhibited, but there also is the company's own trade mark.

This identification is a seal, placed on pumps, tanks, and advertising material. The letters P and K are in the background, on the inner part of the seal, with the words "certified products" in the foreground. In the circles around the seal is the company's name.

With this seal the company stamps its own identity on its merchandise, still retaining the value of the national and sectional advertising on the products sold. In case of a change in brands the company has its own identification to rely on as a sign of the quality of the merchandise.

The seal of certification of products appears on containers in the service stations, and in the company's advertising campaigns. Although the Parks-Klay Co. is a local organization it retains an advertising agent to prepare copy, and schedules its appropriation for the year.

At the beginning of the year John J. Klay, manager of the company, determines the advertising expenditure for the year, and this amount is spread over the twelve months. The current campaign is for two newspaper inserts a month in two campaigns.

One campaign provides for one newspaper insertion a month, a 3-column by 10-inch advertisement. This series is on the products for sale, such as fuel oil, tires, gasoline, and some advertisements are institutional in nature. After each advertisement is published the copy is reprinted for mailing to prospective customers.

The second campaign concerns the company's certification of products sold. These advertisements are published in a 2 column by 6 inch space, once a month. Reprints of this series are included with the mailing of the monthly account statements.

This second campaign features the "certified products" trade mark. The seal is prominent in the illustration, and although the copy mentions brand names of merchandise sold, the idea of the company's own brand is stressed. One of these advertisements contains this paragraph, typical of the idea, "When you drive into a Parks-Klay service station you can be

Guaranteed Automotive Products

FLEET-WING GASOLINES, PENNZOIL Motor Oils, FISK TIRES, and the other automotive products we sell are certified to be the best you can buy for the money.

When you drive into a Parks-Klay Service Station, you can be certain that the products you purchase carry the guarantee of the makers and our own.

The quality of the products we sell is reflected in the hundreds of customers driving daily into Parks-Klay Stations . . . we are pleased to welcome you anytime. May we expect you?

The PARKS-KLAY Company
L·I·M·A·O·H·I·O

One of the advertisements on the Parks-Klay Co.'s seal of "Certified Products." The theme of this series is the company's own trade mark of quality

certain that the products you purchase carry the guarantee of the makers and our own."

In the campaign featuring merchandise sold the certificate idea is advertised, usually in smaller type in a corner of the space. The main copy stresses "P-K Service," and the letters P and K are used frequently to tie in with the company's own trade mark.

Pacific Coast Motorists Given "Owl" Service

SAN FRANCISCO—To provide service for motorists late at night Standard Stations, Inc., marketing division of the Standard Oil Co. of California, has placed 48 stations in 35 Pacific coast district cities on an "owl" schedule.

These all-night stations are strategically located on heavily traveled highways from Seattle to San Diego and Phoenix, and from San Francisco to Reno. They are seldom more "than a tankful of gas" apart. A booklet being distributed at Standard Stations lists the city and street addresses of these stations.

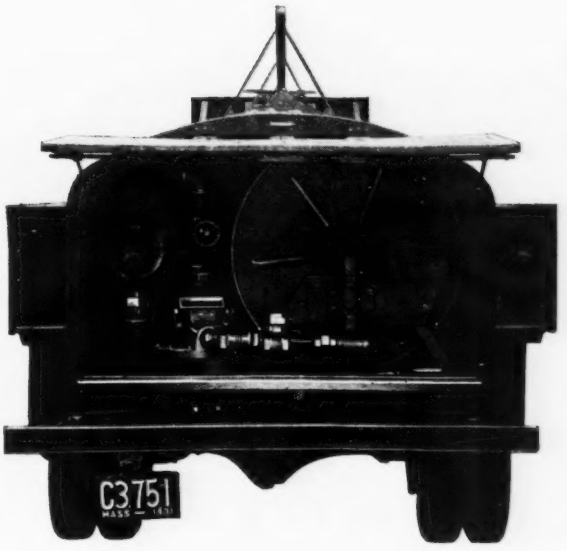
All-night service is becoming more important as night traveling increases. More motorists are driving at night to escape the heat of the day and the crowded highways.

Midwest Builds Power Line from Salt Creek

TULSA, Aug. 18.—Power will be supplied to the refineries of the Midwest Refining Co., and the Standard Oil Co. of Indiana at Casper by the new high tension electric power line just completed for the Midwest Co. by the Stearns-Roger Mfg. Co. of Denver. The line runs from the Midwest's power plant at Salt Creek, and is reported to cost about $150,000 to construct.

The new arrangement will mean a large saving to these plants, and will insure the maintenance of the Salt Creek power plant. The Salt Creek plant also furnishes power for drilling and pumping in the field, on the properties of the Midwest.

The Biggest Step Forward in FUEL OIL SERVICE



"Xacto Metered Deliveries"

Fig. 778 Xacto Meter with 100-gallon swivel dial---visible at long range. Simple in design---light in weight--built for truck service.

Accurate, "sealed-meter" readings show exact amount delivered---no guess-work, errors or arguments. Every gallon accurately checked. Reduces delivery costs---improves service.

WHEN you stop to consider that among the prominent users of Bowser Xacto FUEL OIL Meters are such well-known merchandisers as: Gulf Refining, Silent Automatic, Standard Oil, Petroleum Heat and Power, Cities Service, Argo Oil Corporation, Richfield, Atlantic Refining, Colonial-Beacon---

and, when you realize that many hundreds of other progressive fuel oil marketers have adopted "Xacto-Metered" delivery service---that's convincing evidence that here is something vitally important to the handling of fuel oil---something worth investigating in the interest of increasing the sale of YOUR fuel oils.

"Xacto-Metered" delivery has proved itself the biggest step forward in fuel oil merchandising. There are many reasons why. Let us give you full details.

S. F. BOWSER & CO., Inc.,
FORT WAYNE, INDIANA, U. S. A.
TORONTO SAN FRANCISCO LONDON PARIS BERLIN

SIDE VIEW OF ABOVE "XACTO-METERED" FUEL OIL TRUCK

XACTO BOWSER METER

MOVE!

I'll show you the next move I've taken on the Skelly line

"Clear the drives, boys, the customers will be coming in 4, and probably more, where 3 came in before. We've made a move for more business. We'll keep on the move with Skelly."

Have you seen the BLUE BOOK, that brief but complete bible on helping the jobber sell? It's based on years of successful experience in "Skelly-Jobber" teamwork, and shows just how and why jobbers increase their volume 30 to 50 percent with the Skelly Line. Jobbers who have seen the Blue Book say no other merchandising book in the oil industry approaches it for facts, pictures and convincing evidence.

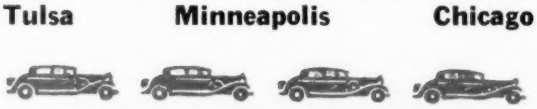
Today, when it takes aggressive moves to get business, we're doing the job better than ever before. See the Blue Book. It takes but a few minutes. Just write, or wire, or call

SKELLY OIL COMPANY

2534 Madison Ave. Kansas City, Mo.

Tulsa Minneapolis Chicago

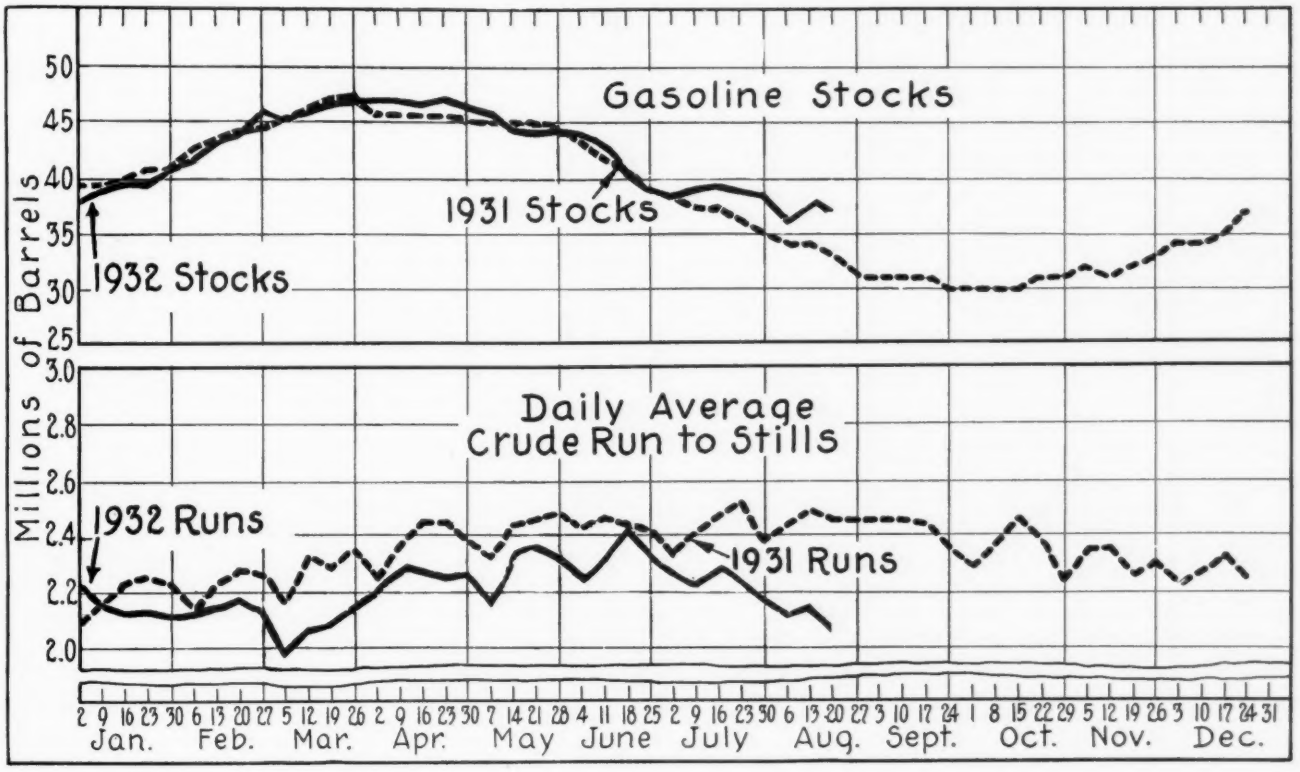
Skelly brings in 4



where 3

came in before

U. S. Crude Runs and Gasoline Stocks as Reported Weekly by A. P. I.



Bulk Motor Fuel Stocks Reduced 1,119,000 Barrels

By Telegraph

NEW YORK, Aug. 23

BULK stocks of motor fuel in the hands of refining companies that report to the American Petroleum Institute, were reduced 1,119,000 barrels to 57,974,000 barrels in the week ended Aug. 20. This compares with a reduction of only 72,000 barrels in the week ended Aug. 13.

Refinery stocks of gasoline were reduced 222,000 barrels to 37,051,000 barrels during the week. Bulk terminal stocks increased 48,000 barrels but gasoline in transit to bulk terminals was reduced 795,000 barrels to 1,299,000 barrels. Estimated stocks of other motor fuels and natural gasoline were reduced 150,000 barrels to 5,225,000 barrels.

Crude runs to refinery stills were reduced 35,000 barrels daily average to 2,128,300 barrels per day. Reporting plants were utilizing 58.1 per cent of their still capacity as compared with 59.1 per cent the previous week.

Refinery gasoline stocks were cut substantially at Indiana-Illinois, Texas Gulf, North Louisiana-Arkansas and Rocky Mountain refineries. California refiners reported a gasoline stock increase of 218,000 barrels to 12,645,000 barrels. All other groups showed gasoline supply and demand to be virtually in balance.

Stocks of fuel and gas oils increased 365,000 barrels to 134,100 barrels.

Current Refinery Operations

Districts	Per Cent Capacity Reporting	Daily Average Crude to Stills (Barrels) Week Ended		Per Cent of Reporting Capacity Operated Week Ended		Stocks (Thousands of Barrels) Gasoline		Gas & Fuel Oil		Cracked % of Total Capacity Reporting	Gasoline Production Daily Av. Production (Barrels) Week Ended	
		Aug. 20	Aug. 13	Aug. 20	Aug. 13	Aug. 20	Aug. 13	Aug. 20	Aug. 13	Aug. 20	Aug. 20	Aug. 13
East Coast	100.0	472,900	431,300	74.6	68.1	6,232	6,191	8,507	8,517	94.1	91,700	97,900
Appalachian	91.8	86,600	85,200	63.0	62.0	1,417	1,393	1,014	1,058	96.1	27,000	27,600
Ind., Ill., Ky.	98.9	284,400	295,700	65.9	68.5	4,972	5,129	4,349	4,350	95.5	80,700	87,300
Okla., Kans., Mo.	89.6	223,100	232,700	51.3	53.5	3,242	3,225	3,366	3,334	92.3	50,600	46,600
Inland Texas	76.5	101,900	109,700	43.6	46.9	1,172	1,180	2,316	2,417	90.2	19,400	21,100
Texas Gulf	99.8	346,300	376,400	65.2	70.8	4,083	4,235	9,018	9,042	98.6	78,700	85,700
La. Gulf	100.0	98,100	101,900	66.5	69.1	1,405	1,400	4,626	4,535	100.0	24,100	22,000
No. La., Ark.	97.0	41,600	45,100	50.1	54.3	96	204	640	638	100.0	8,700	8,400
Rocky Mts.	89.4	49,100	44,900	34.1	31.2	1,787	1,889	576	580	98.5	14,600	12,000
California	96.7	424,300	440,400	48.0	49.8	12,645	12,427	99,688	99,264	100.0	53,000	42,100
Total	95.1	2,128,300	2,163,300	58.1	59.1	37,051	37,273	134,100	133,735	95.6	448,500	450,700

Compilation Of Mid-Continent Refinery Operations

All Rights Reserved to the National Petroleum Publishing Co.

Mid-Continent Refinery Operations, Week Ended Aug. 19 (By Teletype)

	Kansas	Oklahoma	North & Cent. Texas	West Texas	North La.-Ark.	Total Week Ended Aug. 19
Plants Operating.....	10	23	23	10	10	76
Da. Av. Cap. Bbls....	94,000	162,500	107,400	71,500	60,700	496,100
Da. Cracking Capacity	53,200	64,600	23,100	26,250	31,700	198,850
Da. Av. Crude Runs..	57,108 — 5.6	72,078 — 1.8	48,223 + 3.4	12,753 — 46.1	33,998 — 9.1	224,160 — 7.2
Da. Av. Other Oil....	6,021 — 12.4	1,833 — 54.0	1,332 — 55.9	....	13,890 + 7.3	23,076 — 17.0
GASOLINE—Gallons						
Stocks, Aug. 12.....	20,398,000	42,450,000	17,276,000	8,304,000	4,698,000	93,126,000
Prod. 8-12 to 8-19....	10,619,000 + 8.0	12,714,000 — 1.6	8,464,000 + 9.0	1,336,000 — 53.2	5,547,000 — 9.4	38,680,000 — 2.0
Ship. 8 12 to 8 19....	10,659,000 — 5.1	10,988,000 — 31.0	7,729,000 — 18.5	1,894,000 — 1.7	6,180,000 + 5.4	37,450,000 — 15.7
Stocks, Aug. 19.....	20,358,000 — 0.2	44,176,000 + 4.1	18,011,000 + 4.2	7,746,000 — 6.8	4,065,000 — 13.5	94,356,000 + 1.3
Ratio Sales to Prod...	100.4%	86.4%	91.3%	141.8%	111.4%	96.8%
KEROSINE—Gallons						
Stocks, Aug. 12.....	2,683,000	6,396,000	3,303,000	45,000	584,000	13,011,000
Prod. 8-12 to 8-19....	1,658,000 — 15.3	1,800,000 + 5.4	852,000 + 14.3	....	331,000 + 31.6	4,641,000 — 1.0
Ship. 8-12 to 8-19....	1,443,000 — 13.6	1,375,000 + 12.2	1,882,000 +108.1	10,000 — 50.0	391,000 + 0.1	5,101,000 + 21.2
Stocks, Aug. 19.....	2,898,000 + 8.0	6,821,000 + 6.6	2,273,000 — 31.2	35,000 — 22.2	524,000 — 10.3	12,551,000 — 3.5
Ratio Sales to Prod...	87.0%	76.4%	220.9%	.....	118.1%	109.9%
FURNACE OIL—Gallons						
Stocks, Aug. 12.....	747,000	4,218,000	94,000	28,000	60,000	5,147,000
Prod. 8-12 to 8-19....	433,000 — 17.4	456,000 — 59.7	32,000 — 53.0	4,000 — 71.4	....	925,000 — 47.9
Ship. 8-12 to 8-19....	224,000 — 70.0	383,000 — 65.4	50,000 +125.0	5,000 — 16.6	33,000	695,000 — 63.5
Stocks, Aug. 19.....	956,000 + 28.0	4,291,000 + 1.7	76,000 — 19.1	27,000 — 3.6	27,000 — 55.0	5,377,000 + 4.5
Ratio Sales to Prod...	51.7%	84.0%	155.2%	125.0%	....	75.1%
GAS OIL—Gallons						
Stocks, Aug. 12.....	7,670,000	17,674,000	2,747,000	2,710,000	2,805,000	33,607,000
Prod. 8-12 to 8-19....	279,000 — 80.8	524,000 + 8.3	—329,000	267,000 + 5.5	1,726,000 — 16.4	2,467,000 — 43.8
Ship. 8-12 to 8-19....	699,000 — 3.3	....	39,000 — 89.9	33,000	2,353,000 — 9.4	3,124,000 — 24.5
Stocks, Aug. 19.....	7,250,000 — 5.5	18,198,000 + 3.0	2,379,000 — 13.4	2,944,000 + 8.6	2,179,000 — 22.3	32,950,000 — 2.0
Ratio Sales to Prod...	250.5%	....	....	12.4%	136.3%	126.6%
FUEL OIL—Gallons						
Stocks, Aug. 12.....	15,985,000	51,628,000	92,916,000	11,894,000	12,847,000	185,270,000
Prod. 8-12 to 8-19....	4,749,000 + 6.6	4,083,000 — 11.8	5,235,000 + 0.3	1,863,000 — 22.3	3,816,000 + 15.8	19,746,000 — 8.1
Ship. 8-12 to 8-19....	4,614,000 + 8.2	3,143,000 + 26.1	5,363,000 + 0.9	2,175,000 — 9.3	3,466,000 — 5.2	18,761,000 + 3.5
Stocks, Aug. 19.....	16,120,000 + 0.8	52,568,000 + 1.8	92,788,000 — 0.1	11,582,000 — 2.6	13,197,000 + 2.7	186,255,000 + 0.5
Ratio Sales to Prod...	97.2%	77.0%	102.4%	116.7%	90.8%	95.0%

Gasoline Produced by Various Methods, Week Ended Aug. 19

	Kansas	% of Total	Oklahoma	% of Total	North & Cent. Texas	% of Total	West Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run.....	5,966,000	56.2	7,444,000	58.5	4,846,000	57.3	1,313,000	98.3	2,341,000	42.2	21,910,000	56.6
Cracked.....	4,141,000	39.0	3,775,000	29.7	2,547,000	30.1	....		2,507,000	48.8	12,970,000	33.5
Natural.....	512,000	4.8	1,495,000	11.8	1,071,000	12.6	23,000	1.7	699,000	9.0	3,800,000	9.9
Total.....	10,619,000		12,714,000		8,464,000		1,336,000		5,547,000		38,680,000	

+ or — columns are % change over previous week.

Mid-Continent Gasoline Stocks Increase as Shipments Recede

Staff Special—By Teletype

TULSA, Aug. 22.

GASOLINE stocks increase 1,230,000 gallons at 76 Mid-Continent refineries in the week ended Aug. 19. Production was reduced only 800,000 gallons although shipments were 7,000,000 gallons less than in the preceding week.

Crude oil runs averaged 17,400 barrels a day less than in the week before. Only North Texas increased runs over runs in the earlier period.

Shipments of gasoline fell in all but the Louisiana-Arkansas district. Stocks increased only in Oklahoma and North Texas.

Kerosine production was reduced but shipments increased 800,000 gallons. Stocks were lowered 500,000 gallons.

Furnace oil production and shipments were less than in the week before. Stocks rose a trifle. Gas oil stocks were reduced a little. Fuel oil stocks increased 1,000,000 gallons.

Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Aug. 19. Change in stocks figured from July 22.

GASOLINE

	Gallons
Production	149,127,000
Shipments	157,154,000
Net change in stocks	—8,027,000
Ratio sales to production	105.4%

KEROSINE

Production	17,389,000
Shipments	18,911,000
Net change in stocks	—1,522,000
Ratio sales to production	108.8%

STOVE DISTILLATE

Production	4,504,000
Shipments	4,677,000
Net change in stocks	—173,000
Ratio sales to production	103.8%

GAS OIL

Production	15,707,000
Shipments	14,329,000
Net change in stocks	+1,378,000
Ratio sales to production	91.2%

FUEL OIL

Production	79,382,000
Shipments	82,814,000
Net change in stocks	—3,432,000
Ratio sales to production	104.3%

Gasoline Shortage Curbs Jugo-Slav Motors

LONDON—At the beginning of August the entire gasoline stock of Jugoslavia ran so low as to imperil the maintenance of automotive traffic. Practically all the public pumps at Belgrade and Zagreb were temporarily closed, while others issued only limited supplies to their regular customers, and that at advanced prices. In some places the price was increased from 5 to 10 dinars per litre (a dinar is just over 2 cents).

Investigations reveal that the three oil companies have been using up their stocks during the last 10 months, and that they are finding it difficult now to replace them owing to currency restrictions and the shortage of foreign bills.

Jugoslavia, as a debtor nation, finds it difficult to provide a sufficient quantity of foreign bills to meet all the requirements of importers while her own exports remain so low.

Importers have also been hampered by the heavy import duty on crude naphtha. Urgent representations were made to the finance ministry by the companies and by a special delegation of taxi-drivers, who saw their livelihood endangered by lack of fuel.

The Ministry, having granted the necessary authority, the two refineries in the country are hurriedly turning out gasoline for immediate consumption, while the large quantities which have begun to appear are being rapidly sold to the hordes of buyers besieging the distributing stations.

The Anglo-Jugoslav Wood Distillation Co., Teslitch, has introduced a gasoline substitute costing only 45 per cent of the cost of gasoline.

Willson Joins Radbill

PHILADELPHIA, Aug. 20.—Harvey Willson, formerly secretary of the Pennsylvania Grade Crude Oil Association, has joined the organization of the Radbill Oil Co., Philadelphia, in an executive capacity.

Radbill Oil Co. specializes in the sale of packaged motor oils. It has a large distribution of oil through chain stores and claims to be the largest seller of packaged motor oils in the world.

WARREN, Pa., Aug. 19.—W. F. Jewel has become associated with the Oil Service, Inc., in charge of tank car sales, according to B. S. Knabenshue. Mr. Jewel was formerly with Redex Oil Co. and prior to that with the Superior Oil Works and Conewango Refining Co.

E. C. Kenney, formerly with the Allegheny Arrow Oil Co. and the Canfield Oil Co., is now with Oil Service and will represent it in Ohio and along the western border of Pennsylvania.

AUTO-SERVITORIUMS
SPEED UP SALES!

Auto-Servitorium
Type 11, Series "E"

A continual stream of customers is necessary to make your service station profitable. Then, first of all, you need a building that delivers the greatest dollar for dollar value when based upon its power to attract trade.

Motorists welcome the efficiency, cleanliness and quality typified by the colorful Auto-Servitoriums. These highly modern and efficient super-service stations look their part. There is no useless ornamentation, no camouflage. They are as trim and snappy looking as a 1933 sport roadster, and like it, they are made of steel and glass with bright colors.

Now, while prices are still low, is the time to replace out-of-date buildings or to utilize good available locations. There are thirteen different sizes of Auto-Servitoriums from which to choose, ranging from individual salesrooms and lubritoriums to super-service stations having three or more lifts. We shall be glad to send full details. Write today for data.

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO
Sales and Engineering Offices in all Principal Cities

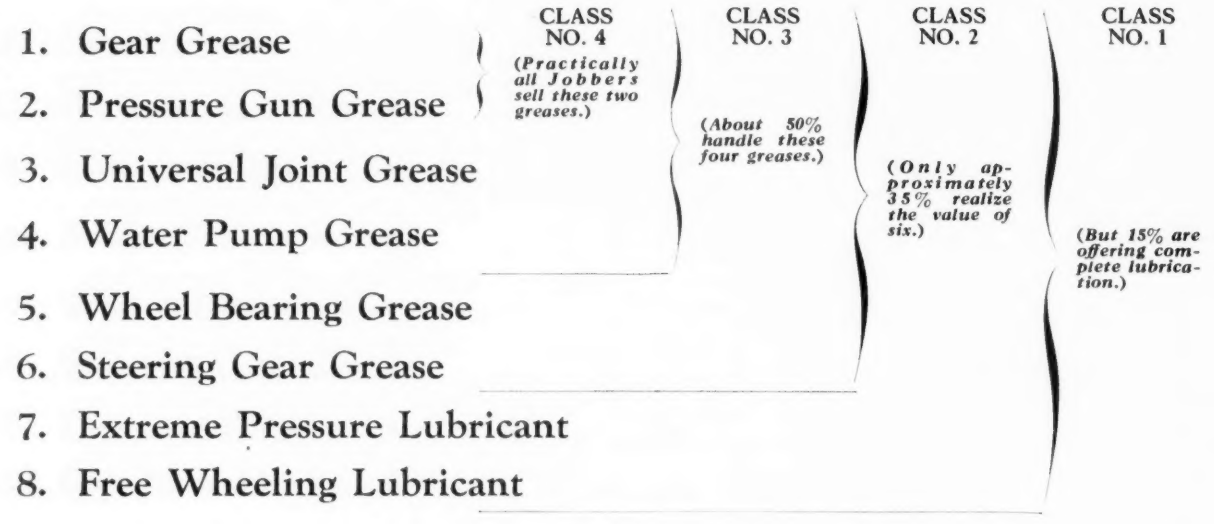
DISTRIBUTORS—DEALERS
You Can't Beat This Pair!

WHITE ROSE GASOLINE
Costs No More Than Regular Gasoline

EN-AR-CO MOTOR OIL
Paraffine Base *Wear Proof*
Write for Contract Details
THE NATIONAL REFINING COMPANY, *Cleveland, Ohio*

Mr. Oil Jobber

—in which class are You?


1. Gear Grease
2. Pressure Gun Grease
3. Universal Joint Grease
4. Water Pump Grease
5. Wheel Bearing Grease
6. Steering Gear Grease
7. Extreme Pressure Lubricant
8. Free Wheeling Lubricant
CLASS NO. 4
(Practically all Jobbers sell these two greases.)
CLASS NO. 3
(About 50% handle these four greases.)
CLASS NO. 2
(Only approximately 35% realize the value of six.)
CLASS NO. 1
(But 15% are offering complete lubrication.)

ONLY *one* out of seven Oil Jobbers are in a position to service their customers with a *complete, specialized* job of greasing . . . Only *one* out of seven can offer their dealers those greases which are vitally necessary to render such a service . . . As a result, only *one* out of seven are realizing the *maximum* profit from their lubrication sales . . . Bat's Greases for specialized lubrication can make *you* the ONE out of seven!

BATTENFELD GREASE AND OIL CORPORATION
KANSAS CITY, MISSOURI

Branch Office and Warehouse Stock: **Minneapolis, Minn.**

"Business is Ingreasing"

Refinery - Tank Wagon Markets

East Coast Gasoline Prices Off Sharply; Mid-Continent Burning Oils Tighten

CLEVELAND, Aug. 22

REACTION set in refinery gasoline markets in most parts of the country last week. Rather severe price recessions were reported on the Atlantic coast. Burning oils continued to show improvement, particularly in the middle west. Lubricating oils turned downward in the first major price movement since the pre-tax buying flurry in June.

Retail gasoline markets were unsettled. Perhaps the most important occurrence of the week was the announcement by Standard of Indiana that beginning Aug. 22 it would offer discounts of 1 to 2 cents a gallon to consumers using 100 gallons or more of gasoline per month. The Indiana company said it was doing something that competitors had been doing secretly for some time.

All was not well in the eastern retail situation either. Atlantic Refining Co. reduced prices 0.5 to 1 cent a gallon throughout Pennsylvania and Delaware and the third-grade gasoline situation was reported the cause of considerable trouble in several areas in the Atlantic's territory. Atlantic itself does not officially offer third-grade gasoline in Pennsylvania and Delaware.

Retail price reductions of 1 cent also were reported in western New York while in New England there were signs of the price war which has waged there for some weeks ceasing. Boston and Providence service station prices were advanced 1 cent.

An overstocked position on gasoline on the part of several of the larger Atlantic coast distributors and a threatening foreign situation were said to have caused the break in eastern tank car prices. Prices for both low and high octane gasolines were down 0.5 to 0.75 cent at New York, Baltimore and Philadelphia.

In the middle west, sizable lots of low octane gasoline sold to resale agents for shipment over the month were beginning to appear on the market and refinery generally lowered their quotations in an effort to meet the competition. The high octane gasolines were in fairly good position, the market being relatively free of surplus offerings. Smaller independent refiners on the west coast were shoving considerable gasoline on the market and the price position there was easy. Pennsylvania gasoline prices remained steady although the trade reported a substantial narrowing down in the territory to which they could ship to open market buyers.

There was no easing in the tight burning oils situation in the Mid-Continent. Offerings, particularly of the zero cold test oils, were extremely scarce and prices had no difficulty in working to higher levels. Boston prices for burning oils were slightly lower but elsewhere in the east, these oils were holding their own.

Pennsylvania bright stock and neutral oil prices dropped in amounts ranging from 0.25 to 1.5 cent a gallon. Mid-Continent bright stock prices were down 2 cents. Buying, according to reports, generally, continued high.

Cargo markets were quiet although there was indication of some interest from European buyers.

Gasoline Easier At Chicago; Burning Oils Tight

Staff Special

CHICAGO, Aug. 20

THE Chicago tank car market showed two distinct trends the past week when gasoline prices continued to show downward tendencies and burning oil prices moved upward for the fourth consecutive week.

Most of the easiness in the gasoline market was reported to be in the low octane grades, with higher octane gasoline showing considerably more resistance to lower prices. Open market demand was reported light, especially on the below 57 octane gasoline while demand from contract buyers was fair. Most traders said their business on low octane gasolines was gradually growing lighter, as jobbers were demanding the better grades, due to more intense competition from the companies who have raised the anti-knock value of their regular competitive gasolines.

Summary of Group 3 Quotations for U. S. Motor Gasoline
In Effect Aug. 22, 1932

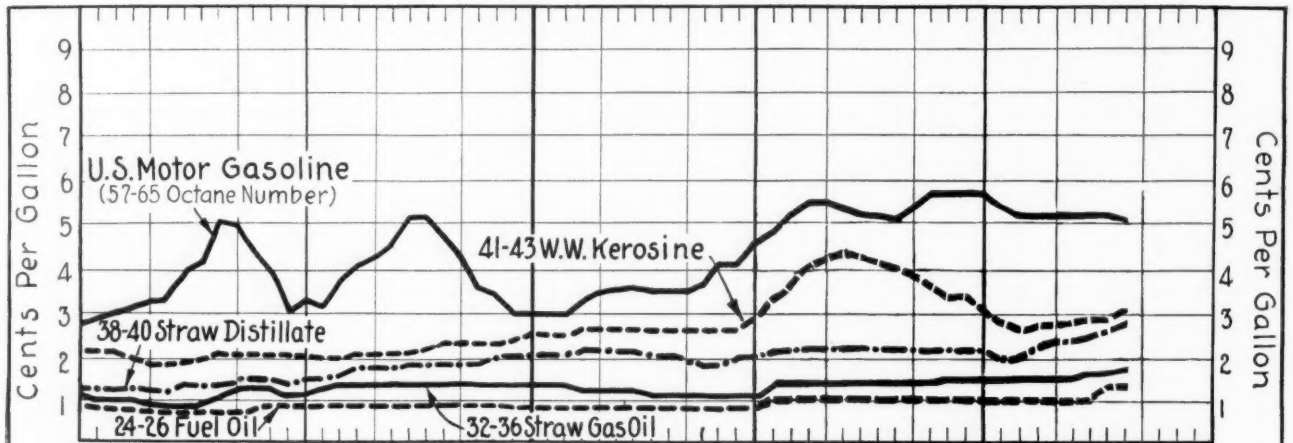
	Below 57 Octane No.	57-65 Octane No.	Above 65 Octane No.
Okla.	4.375-4.625	5.00-5.375	5.25-5.625
Kans.	4.375-4.625	5.00-5.375	5.25-5.625
N. Tex.	4.375-4.625	4.75-5.125	5.125-5.375
W. Tex.	4.375-4.625	4.75-5.125	5.125-5.375
La.-Ark.	4.375-4.625	5.00-5.25	5.25-5.50
Ind.-Ill.	4.375-4.625	.....	.....

Prices are those quoted on the basis of f.o.b. Group 3 by refiners in the districts designated.

Tank car gasoline prices, while making no drastic break, were lower by 0.125 cent on the two lower octane grades by the end of the week. The reduction in price of the 57-65 octane grade apparently was due more to preventing the spread between it and the below 57 octane to widen than to any pronounced easiness as demand for the 57-65 continued heavy enough to keep any distress goods from appearing. One refiner, who has been offering a 60 octane gasoline at publication prices for below 57 octane grade, reported advancing his price due to being behind in shipments.

Quotations for the three grades of U. S. Motor generally were at 4.25 to 4.625 cents for below 57 octane; 4.75

Current Prices of Principal Mid-Continent Refined Products



Prices shown are in Group 3 basis and extended to date shown in Refinery Market Table Section of this issue

to 5.125 cents for 57-65 and at 5.125 to 5.375 cents for above 65 octane as the week ended.

Kerosine prices moved upward and 41-43 w.w. grade closed the week at 3 to 3.125 cents, compared to a range of 2.875 to 3 cents on Aug. 15. The 42-44 w.w. grade also was up to 0.125 cent. Demand was not reported especially active, but movement was fairly heavy and apparently was enough to keep any slackness out of the market.

Some easing up was noted in the tight situation which has prevailed on distillate, gas and fuel oils for the past three weeks. Buyers apparently had obtained nearly enough of these grades to take care of their immediate needs or had put as much in storage as they wished to at present price levels. However, no tendency toward lower prices was noted and a few grades moved higher during the early days of the week. A large number of furnace oil distributors in Chicago advanced their tank wagon prices on Aug. 20.

Independents Cutting 2 Cents Under Third Grade Gasoline Schedule

LOS ANGELES, Aug 19.

EFFORTS of ethical marketing companies on the Pacific Coast to maintain profitable price structures on gasoline are gradually being defeated by continued underselling on the part of a small group of refiners, not all of whom are independent.

Although Pacific Coast retail gasoline markets have been relatively stable since the 25-cent boost in crude schedules June 26, accumulation of gasoline stocks in independent company tanks precipitated price cutting that is slowly undermining the entire marketing structure here.

Independent resellers in the Los Angeles Basin have consistently maintained retail prices under the third-grade schedules posted by major companies. As long as this differential was not more than one cent it was estimated the independent was not hurting the major-company gallonage.

However, within the past few weeks a large increase has been noticed in the number of independent stations retailing at 2 cents under the price on third-grade brands. This has resulted in a loss of third-grade gallonage and has had an effect on the gallonage of the first grade white and Ethyl products.

The situation is further complicated by a differential of 4 cents between third-grade and regular white brands of gasoline. In recent weeks it is estimated that approximately 60 per cent of all major company sales in southern California has been third grade, with the regular and Ethyl taking 30 and 10, respectively. In the past week this ratio has become even more overbalanced on the third-grade side.

Dealers margins for 100 per cent, or controlled accounts, are four cents a gallon on regular white and Ethyl and two cents on the third structure products. On split accounts the margin on Ethyl and regular is three cents and one cent on the third grade.

This small margin of profit on the third structure gasolines has thrown the burden of this semi-private war on the shoulders of the service station operators and many are finding it almost impossible to show a profit where a large proportion of their business is the cheaper product.

If the third-grade product is made really competitive and reduced one or possibly two cents, experts expect to see a corresponding reduction in the two better quality products.

Efforts to combat cut-price competition through the introduction of third-grade motor fuels has proven anything but the anticipated panacea for the ills of the Pacific Coast marketing trade.

For one thing the third grade brands, which were introduced for the prime purpose of competing with cut price brands, have not been made strictly competitive. This has re-

Prices A Year Ago

Aug. 24, 1931

	Oklahoma	Penna.
58-60 U. S. Motor Gasoline	5.00-5.25	5.00-5.50
Grade A Natural Gasoline	5.25-5.375	.....
Kerosine (Okla. 41-43; Pa. 47 w.w.)	2.00-2.25	3.75-4.00
Fuel Oil (Okla. 24-26; Pa. 36-40)	$0.275-$0.325	2.625-2.75
Crude (Okla. 35-35.9)	$0.60	$1.75
Chicago tank wagon (including 3c tax)		11.00c

sulted in a most complicated price structure under which gasolines now retail over a range of 11.5 cents on some independent products, to 13.5 cents on regular third-grade brands, to 14 cents on some "first grade" independent brands, to 17.5 cents on standard first grade, and to 20.5 cents on Ethyl. These prices are effective in the Los Angeles Basin.

Just as in the days before a third grade brand was used, when independent brands had to sell at one to two cents under regular major brands, now small independents furnish a "no-brand" product that can be sold in quantity only when priced at one to two cents under the third-grade brands. With less than a one cent spread the service and prestige of major-company stations will continue to attract the business.

Indiana Standard Patrons Given "Car Record"

CHICAGO, Aug. 20.—Standard Oil Co. of Indiana is distributing to its customers booklet for recording automotive servicing. This booklet is 3½ inches wide by 5 inches long, and is enclosed in a stiff envelope for protection.

The first page has space for the car owner's name and address, and the state and city license and factory number of the auto. Six pages follow for recording gasoline and quart oil purchases. There is space for the date, speedometer reading, price of the gasoline or oil, and taxes.

Two pages for lubrication records follow. Space is for date, speedometer reading, crankcase drained and flushed, chassis clutch bearing, transmission and free wheeling, differential, universal joint, and front wheel bearings lubricated.

Then there is a page for recording the date, speedometer reading and cost of tire work, and the dates of checking and charging and the cost of battery service. On the next page washing, polishing and storage charges can be recorded. Several pages for noting repair bills, telephone numbers, and memoranda notes complete the book.

Standard advertises its merchandise and services on the front cover, bottom of center spread, and on the last inside page. A calendar is printed on the inside rear cover. The car owner's nearest Standard Oil service station is noted on the first inside page.

These car record booklets are being distributed free to patrons as a new feature of Standard's service.

ST. LOUIS—Employes of Shell Petroleum Corp. completing 15 years' service in May-June this year are W. W. Dippel, car foreman, E. Chicago; E. N. Hudgins, master mechanic, Norco refinery; D. E. Lavin, manager distribution department, St. Louis; M. J. Matherne, general operator, Norco refinery; Angus McLeod, chief geologist, Dallas; Fred Ruderhausen, storehouse clerk, Wood River refinery; Alby May Schaefer, general clerk, St. Louis; and Dr. R. H. Waser, superintendent, E. Chicago refinery.

Mid-Continent Refinery Markets

Burning Oils Higher; Gasoline Prices Down

Staff Special

TULSA, Aug. 20

MID-CONTINENT burning oils continued their unexpected advances the third week of August while gasoline and bright stock lost ground. Natural gasoline marked time.

Buyers continued to comb the market for distillate and zero cold test gas oil. Several refiners reported they had withdrawn entirely from the market and were not even offering to make contracts at present. A few refiners have made contracts only with their 100 per cent dealers. Material of almost any description was hard to find even for deferred shipment.

The result of this continued activity was another gain in prices in the course of the week. Prices advanced 0.125 to 0.375 cent per gallon depending on the grade of oil desired.

High gravity fuel oil also was more active, particularly in view of the scarcity of the gas oils. Several buyers turned to the 28-30 gravity zero fuel oil when they were unable to obtain the gas oil they desired. And with the demand greater the fuel oil became scarcer and prices late in the week had risen several cents a barrel and were virtually nominal.

Prices for other fuel oils advanced in sympathy with the high gravity grades.

Kerosine demand was steady, most refiners reported, but in some instances buyers had turned to that oil when distillate became unobtainable and the result was a slight advance in prices late in the week.

Mid-Continent bright stock prices were reduced 2 cents a gallon late in the week as a result of the break in prices in Pennsylvania. Mid-Continent refiners said they were not burdened with stocks since several plants had been shut down following the wave of buying prior to June 21 when stocks were depleted considerably. The fact that Pennsylvania refiners, however, had reduced their prices affected indirectly contracts western refiners had with their customers and prices were brought down in line with the Pennsylvania price schedule.

No changes were announced in neutral oil prices at the time bright stock prices were reduced Aug. 18. Demand for neutrals has been slower the past few weeks, several refiners said, and the drop in prices in Pennsylvania may have some effect on those in this territory in the near future.

Recent offerings of gasoline by the Standard Oil Co. of Kansas for shipment over the month began to have its effect on the spot market late in the week. The Standard company sold a large quantity of gasoline to marketers at a flat price but later attempted to recall some of these sales but were not successful in recalling all the goods. The gasoline began appearing in the open market in the Standard of Indiana territory in sufficient quantity to take a portion of the spot business away from refiners and the result was a decline in prices for low octane gasolines.

The middle and high octane gasolines were still comparatively scarce for open market shipment and prices for those grades were not immediately affected.

Refiners generally reported their contract shipments had held up well throughout the week and that production and shipments had remained about on a parity. Shipments were not expected to equal the total of the previous week when they increased almost 10 million gallons in the Mid-Continent.

Traders generally anticipated an improvement in gasoline demand next week as jobbers prepared for the Labor Day holiday demand. This increase was not anticipated, however, until late in the week and possibly might not get under way before early in the week beginning Aug. 29.

Natural gasoline prices remained steady throughout the week. Supply and demand apparently was evenly balanced and no distress material made its appearance in the open market.

Buyers continued to seek low vapor pressure material but reports generally indicated there was not as much available for shipment in the open market as had been the case earlier in the summer. Several refiners were reported to have increased their use of naturals preparatory to the advent of cooler weather.

Chicago Tank Car Market

Following prices are in cents per gallon, except fuel oil in barrels, in tank car lots, representing majority of sales to jobbers on Group 3 freight basis, although shipments may originate in other refining districts, such as North, West and East Texas, Louisiana, Arkansas, Indiana, Illinois, Kentucky, etc. Prices do not include state or federal taxes levied on some products.

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
50-52, 437 e.p. naphtha	4.375– 4.625	4.50 – 4.625	4.50 – 4.625
U. S. Motor Gasoline:			
Below 57 octane number	4.25 – 4.625	4.375– 4.625	4.50 – 4.75
57-65 octane number	4.75 – 5.125	4.875– 5.125	4.875– 5.25
Above 65 octane number	5.125– 5.375	5.125– 5.375	5.25 – 5.50
60-62 400 e.p. gasoline:			
Below 57 octane number	4.50 – 4.75	4.50 – 4.75	4.625– 4.875
57-65 octane number	4.875– 5.25	4.875– 5.25	5.00 – 5.25
Above 65 octane number	5.25 – 5.50	5.25 – 5.50	5.25 – 5.50
64-66 375 e.p. gasoline	4.875– 5.00	4.875– 5.00	4.875– 5.00
68-70 350-360 e.p. gasoline	5.00 – 5.25	5.00 – 5.25	5.00 – 5.25
Aviation Gasoline, below 73 octane number	4.875– 5.25	4.875– 5.25	4.875– 5.25
41-43 water white kerosine	3.00 – 3.125	2.875– 3.00	2.875– 3.00
42-44 water white kerosine	3.125– 3.25	3.00 – 3.125	3.00 – 3.125
38-40 prime white Furnace Oil	*2.75 – 2.875	*2.75 – 2.875	*2.375– 2.50
38-40 straw Furnace Oil	2.625– 2.75	2.625	2.375– 2.50
32-36 ordinary dark gas oil	1.375– 1.50	1.375– 1.50	1.25 – 1.375
32-36 dark zero gas oil	2.00 – 2.25	2.00 – 2.25	1.875– 2.00
32-36 straw zero gas oil	*2.375– 2.50	*2.25 – 2.375	*2.00 – 2.25
28-30 zero fuel oil (per bbl.)	*$0.70 –$0.75	*$0.65 –$0.70	*$0.55 –$0.60
28-30 fuel oil (per bbl.)	$0.60 –$0.65	$0.55 –$0.60	$0.45 –$0.50
24-26 fuel oil (per bbl.)	$0.475–$0.50	$0.425–$0.475	$0.35 –$0.40
18-22 fuel oil (per bbl.)	$0.25 –$0.30	$0.25 –$0.275	$0.25 –$0.275
18-22 zero fuel oil (per bbl.)	$0.30 –$0.40	$0.30 –$0.375	$0.30 –$0.35
14-16 fuel oil (per bbl.)	$0.20 –$0.225	$0.20 –$0.225	$0.20 –$0.225

*Nominal.

Naphtha and Solvent

(Prices are in cents per gallon, in tank car lots, as quoted by Chicago sellers)

	Aug. 22		Aug. 15	
	F.O.B. Group 3 Basis	F.O.B. Chicago District	F.O.B. Group 3 Basis	F.O.B. Chicago District
Stoddard Solvent	5.50 – 5.75	7.00 – 9.00	5.50 – 5.75	7.00 – 9.00
V.M. & P. Naphtha	5.75 – 6.25	7.50 – 8.50	5.75 – 6.25	7.50 – 8.50
Cleaners Naphtha	6.25 – 6.50	9.00	6.25 – 6.50	9.00
Oleum Spirits	5.00 – 5.50	6.00 – 7.00	5.00 – 5.50	6.00 – 7.00
Rubber Solvent	6.00 – 6.50	10.00	6.00 – 6.50	10.00
Lacquer Diluent	7.50 – 8.50	12.50	7.50 – 8.50	12.50

Oil Trademarks for Copyright

THE following are trademark applications pertinent to our field pending in the United States Patent office which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade-Mark Company, Munsey Building, Washington, D. C., trademark specialists.

As an additional service feature to its readers, this journal gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering. You may communicate with the Editor of this Department, or send your inquiry direct to the National Trade-Mark Company, stating that you are a reader of this journal.

"NOCTAN." Ser. No. 327,963. Advance Paint Co., Indianapolis, Ind. For anti-knock compounds to be added to gasoline.

"SHELL." Ser. No. 317,382. Shell Oil Co., San Francisco, Calif. For petroleum pitch, a residue from the distillation of crude petroleum oils.

"GOLDEN DOME." Ser. No. 328,518. H. S. Benedikt Co. Inc., New York, N. Y. For dry cleaning fluid.

"FRANKLIN RUSTFOIL," Ser. No. 325,945. The Franklin Oil & Gas Co., Bedford, Ohio. For preparation for prevention and elimination of rust.

"ROCO PENN." Ser. No. 327,068. Richfield Oil Corp. of New York, New York, N. Y. For petroleum products, namely, lubricating oils and motor lubricating oils.

"CALMEC." Ser. No. 327,578. Calmec Mfg. Co. Ltd., Los Angeles, Calif. For oil field equipment, namely, crown blocks, rotary tables, line spoolers, cement heads, counter balances, pitmans, rod spiders, tubing spiders, drill pipe spiders, chain tighteners, pump valves, pump pistons.

"HYCO-GAS." Ser. No. 327,703. Phillips Petroleum Co., Bartlesville, Okla. For gas for commercial and domestic purposes.

"FOAMO KLEANZIT." Ser. No. 327,585. Foamo Kleanzit Co., Waseca, Minn. For cleaners.

"ARTEX." Ser. No. 327,965. The American Oil Co., Baltimore, Md. For petroleum solvent and cleaning naphtha.

Oil drum with band of red at one end, band of green at other end, and band of white between; each color running circumferentially and covering about one-third of drum surface. Ser. No. 325,963. Wolverine-Empire Refining Co., Wilmington, Del., and New York. For lubricating oils.

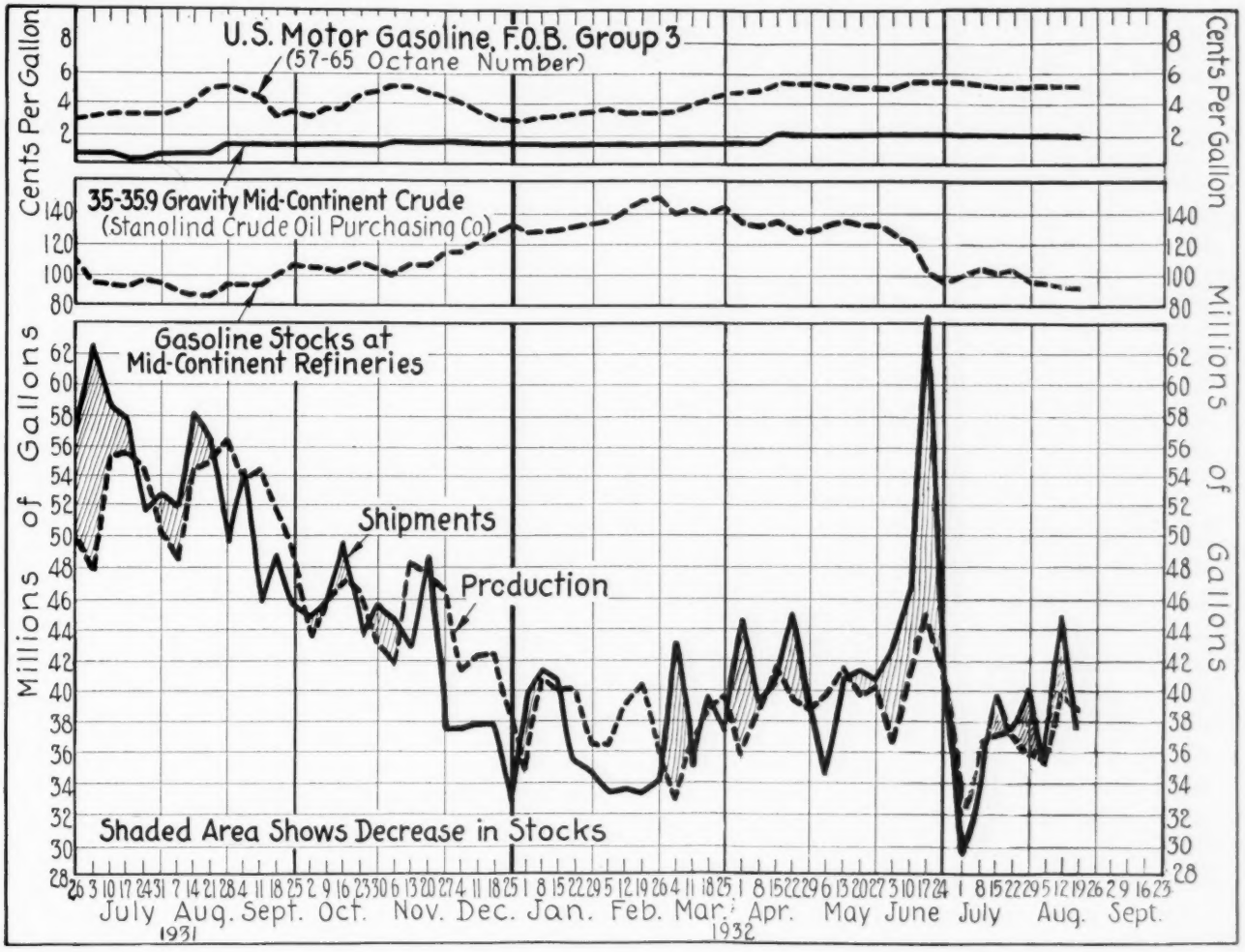
ARTEX. Ser. No. 327,964. The American Oil Co., Baltimore. For motor oils and greases, auto oils and greases, oils and greases for general lubricating purposes, gasoline, and motor fuel.

TRAVELENE. Ser. No. 328,140. Strauss Stores Corp., Brooklyn. For lubricating oils.

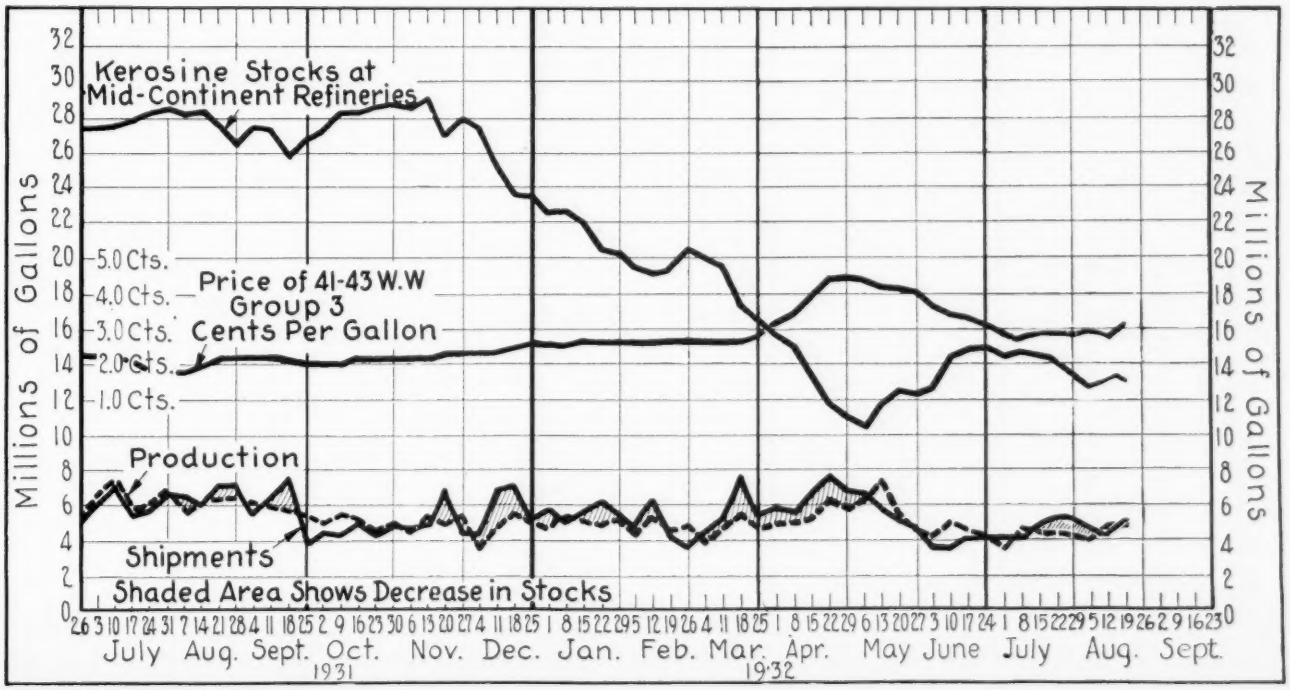
FILTERED GASOLINE (disclaimed) on fanciful background. Ser. No. 325,382. Aitken and McDonald Co., Beaumont, Tex. For filtered gasoline.

Barometer of Mid-Continent Refinery Market—Week Ending Aug. 19

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, from Reports Made by 76 Plants to National Petroleum News


U.S. Motor Gasoline, F.O.B. Group 3
(57-65 Octane Number)
35-35.9 Gravity Mid-Continent Crude
(Stanolind Crude Oil Purchasing Co.)
Gasoline Stocks at Mid-Continent Refineries
Shipments
Production
Shaded Area Shows Decrease in Stocks
Cents Per Gallon
Millions of Gallons
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1931
1932

***Prices** shown above are extended to date shown in Refinery Market and Crude tables in Market section of this issue and stocks, shipments and Production are extended to date as shown in the table on page 50*



Refinery Markets on Light Oils and Lubricants

Prices given below are in cents per gallon, except where $ is shown in tank car lots, f.o.b. Refinery. They represent prices made only to domestic jobbers who resell to the consuming public, except where otherwise noted. Tank car prices do not include state or federal taxes levied on some products.

(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)

GASOLINE AND NAPHTHA

OKLAHOMA (F. o. b. Oklahoma refineries)

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
50-52 450 e.p. naphtha...	4.50 – 4.75	4.625– 4.75	4.625– 4.75
U. S. Motor Gasoline			
Below 57 octane number	4.375– 4.625	4.625– 5.00	4.625– 5.00
57-65 octane number...	5.00 – 5.375	5.00 – 5.50	5.00 – 5.50
Above 65 octane number	5.25 – 5.625	5.25 – 5.75	5.25 – 5.75
60-62, 400 E.P. Gasoline.			
Below 57 octane number	4.50 – 4.75	4.75 – 5.125	4.75 – 5.125
57-65 octane number...	5.125– 5.50	5.125– 5.50	5.125– 5.50
Above 65 octane number	5.375– 5.75	5.375– 5.75	5.375– 5.75
64-66, 375 E.P. Gasoline.	5.00 – 5.125	5.00 – 5.25	5.00 – 5.25
68-70 350-360 e.p. gasoline	5.125– 5.25	5.25 – 5.375	5.25 – 5.375
Aviation Gasoline, below 73 Octane number	5.00 – 5.25	5.00 – 5.25	5.00 – 5.25

PENNSYLVANIA (F. o. b. Western Pennsylvania refineries)

52-54 Naphtha.....	6.75 – 6.875	6.75 – 6.875	6.75 – 6.875
54-56 Naphtha.....	6.875– 7.00	6.875– 7.00	6.875– 7.00
U. S. Motor (58-62°)....	6.875– 7.00	6.875– 7.00	6.875– 7.00
68-70 350-360 e.p.....	7.25 – 7.50	7.25 – 7.50	7.25 – 7.50

OHIO (Quotations of S. O. Ohio. Delivered any point in Ohio.)

U. S. Motor Gasoline....	8.50	8.50	8.50
60-65 Octane number....	8.75	8.75	8.75

KANSAS (F. o. b. refinery, Kansas destination)

U. S. Motor Gasoline			
Below 57 octane number	4.75 – 5.00	4.875– 5.125	4.875– 5.125
57-65 octane number...	5.25 – 5.50	5.25 – 5.625	5.25 – 5.625
Above 65 octane number	5.50 – 5.75	5.50 – 5.875	5.50 – 5.875
60-62 400 e.p. gasoline....	5.00 – 5.25	5.00 – 5.375	5.00 – 5.375
64-66 375 e.p. gasoline....	5.25 – 5.50	5.25 – 5.50	5.25 – 5.50

NORTH TEXAS (F. o. b. Wichita Falls district refineries)

U. S. Motor Gasoline			
Below 57 octane number	4.375– 4.625	4.50 – 4.875	4.50 – 4.875
57-65 octane number..	4.75 – 5.125	4.875– 5.25	4.875– 5.25
Above 65 octane number	5.125– 5.375	5.25 – 5.50	5.25 – 5.50
60-62 400 e.p. gasoline...	4.50 – 4.75	4.75 – 5.00	4.75 – 5.00
64-66 390 e.p. gasoline....	4.875– 5.00	5.00 – 5.25	5.00 – 5.25
64-66 375 e.p. gasoline....	4.875– 5.00	5.00 – 5.25	5.00 – 5.25
68-70 350-360 e.p. gasoline	5.00 – 5.125	5.125– 5.375	5.125– 5.375

WEST TEXAS (F. o. b. West Texas refinery, for unrestricted shipment)

U. S. Motor Gasoline			
Below 57 Octane number	4.375– 4.625	4.50 – 4.875	4.50 – 4.875
57-65 Octane number..	4.75 – 5.125	4.875– 5.25	4.875– 5.25
Above 65 Octane number	5.125– 5.375	5.25 – 5.50	5.25 – 5.50

NORTH LOUISIANA (N. La., Ark. and Miss. destination)

U. S. Motor Gasoline			
Below 57 Octane number	4.75 – 5.00	5.00	5.00
57-65 Octane number..	5.125– 5.375	5.375	5.375
Above 65 Octane number	5.375– 5.625	5.625	5.625

ARKANSAS (Ark., N. La., and Miss. destination)

U. S. Motor Gasoline			
Below 57 Octane number	4.75 – 5.00	5.00	5.00
57-65 Octane number...	5.125– 5.375	5.375	5.375
Above 65 Octane number	5.375– 5.625	5.625	5.625

CALIFORNIA (3c tax to be added to California gasoline prices if used in state.)

54-58 U.S. Motor 437 e.p.	6.00 – 8.50	6.25 – 8.50	6.25 – 8.50
54-58 U.S. Motor, for outside state shipment....	6.00 – 7.75	6.00 – 7.75	6.25 – 7.75
42-45 Engine Distillate 445-480 e.p.....	7.00 – 8.00	6.50 – 7.75	6.50 – 7.75

†Prices Nominal. ††Only one refiner Quoting. *Quotations only.

NATURAL GASOLINE

OKLAHOMA (F. o. b. Group 3)

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
‡Grade 26-70.....	2.25	2.25 – 2.375	2.25 – 2.375

NORTH TEXAS (F. o. b. Breckenridge)

‡Grade 26-70.....	2.25	2.25	2.25

CALIFORNIA (F. o. b. California refineries)

75-85, 375-390 e.p. for blending.....	5.00 – 5.75	5.00 – 5.75	5.25 – 6.00

‡On inquiries for other grades of natural gasoline, majority of manufacturers quote prices 10 to 15% above or below Grade 26-70 for each 4 pounds difference in vapor pressure between the grade desired and that of Grade 26-70.

BURNING OILS

PENNSYLVANIA (F. o. b. Western Pennsylvania refineries)

45 w.w. kerosine.....	4.375– 4.50	4.50 – 4.75	4.50 – 4.75
46 w.w. kerosine.....	4.625– 4.75	4.75 – 4.875	4.75 – 4.875
47 w.w. kerosine.....	4.875– 5.125	5.00 – 5.125	5.00 – 5.125

OKLAHOMA (F. o. b. Oklahoma refineries)

41-43 w.w. kerosine.....	3.00 – 3.25	2.875– 3.00	2.875– 3.125
42-44 w.w. kerosine.....	3.25 – 3.50	3.00 – 3.25	3.00 – 3.375

KANSAS (F. o. b. refinery Kansas destination)

41-43 w.w. kerosine.....	3.25 – 3.50	3.25 – 3.50	3.25 – 3.50
42-44 w.w. kerosine.....	3.50 – 3.625	3.50 – 3.625	3.50 – 3.625

NORTH TEXAS (F. o. b. Wichita Falls district refineries)

41-43 w.w. kerosine.....	3.00 – 3.25	2.875– 3.125	2.875– 3.125

NORTH LOUISIANA (N. La., Ark. and Miss. destination)

41-43 w.w. kerosine.....	3.50	3.50	3.25 – 3.50

ARKANSAS (Ark., N. La. and Miss. destination)

41-43 w.w. kerosine.....	3.75	††3.75	††3.75

CALIFORNIA (F. o. b. California refineries)

38-40 w.w. kerosine.....	4.00 – 4.75	4.00 – 4.75	4.00 – 4.75

NEUTRAL OIL

PENNSYLVANIA (F. o. b. Western Pennsylvania refineries)

Viscous Neutrals

Vis.	(Viscosity at 70° F.)		
200 No. 3 color, 420-425 flash:			
Zero pour test.....	21.00 –22.00	22.00 –23.00	22.00 –23.00
10 pour test.....	19.00 –20.00	21.00 –22.00	21.00 –22.00
15 pour test.....	17.50 –18.00	19.00 –20.00	19.00 –20.00
25 pour test.....	16.50 –17.00	16.75 –17.00	16.75 –17.25
30 pour test.....	16.25 –16.75	16.50 –17.00	16.50 –17.00
180 No. 3 color, 410-415 flash:			
25 pour test.....	14.50 –15.00	15.00 –16.00	15.00 –16.00
150 No. 3 color, 400-405 flash:			
Zero pour test.....	14.00 –15.00	14.50 –16.00	14.50 –16.00
10 pour test.....	13.00 –14.00	14.00 –15.00	14.00 –15.00
15 pour test.....	12.00 –13.00	13.00 –14.00	13.00 –14.00
25 pour test.....	11.00 –12.00	11.75 –12.00	11.75 –12.00
30 pour test.....	10.75 –11.25	11.50 –12.00	11.50 –12.00

Refinery Markets Wax, Lubricants, Heavy Oil

Prices given below are in cents per gallon, except where $ is shown in tank car lots, f.o.b. Refinery. They represent prices made only to domestic jobbers who resell to the consuming public, except where otherwise noted. Tank car prices do not include state or federal taxes levied on some products.

(For quick reference to Refinery Prices, get the OIL PRICE HANDBOOK, published annually)

**MID-CONTINENT (F. o. b. Mid-Continent refineries)

Vis. Color	Prices Aug. 22 (Viscosity at 100° F.) 0 to 10 Pour Point	15 to 30 Pour Point	Prices Aug. 15 (Viscosity at 100° F.) 0 to 10 Pour Point	15 to 30 Pour Point
100—No. 2..	4.50	4.00 – 4.25	4.50	4.00 – 4.25
150—No. 3..	6.50	6.25	6.50	6.25
150—No. 4..	6.00 – 6.25	5.75 – 6.00	6.00 – 6.25	5.75 – 6.00
180—No. 3..	7.75	7.25 – 7.50	7.75	7.25 – 7.50
180—No. 4..	7.25 – 7.50	7.00 – 7.25	7.25 – 7.50	7.00 – 7.25
180—No. 5..	7.00 – 7.25	6.75 – 7.00	7.00 – 7.25	6.75 – 7.00
200—No. 3..	8.50	8.00	8.50	8.00
200—No. 4..	8.25	7.50 – 7.75	8.25	7.50 – 7.75
200—No. 5..	7.75	7.25	7.75	7.25
220—No. 3..	9.00 – 9.50	9.00	9.00 – 9.50	9.00
220—No. 4..	9.00 – 9.25	8.50 – 8.75	9.00 – 9.25	8.50 – 8.75
220—No. 5..	8.75 – 9.00	8.50	8.75 – 9.00	8.50
240—No. 3..	10.00 –10.50	9.50	10.00 –10.50	9.50
240—No. 4..	9.50 – 9.75	9.00 – 9.25	9.50 – 9.75	9.00 – 9.25
240—No. 5..	9.50	9.00	9.50	9.00
280—No. 3..	11.50 –11.75	10.75 –11.00	11.50 –11.75	10.75 –11.00
280—No. 4..	10.50 –11.00	10.00 –10.50	10.50 –11.00	10.00 –10.50
280—No. 5..	10.75	10.25	10.75	10.25

SOUTH TEXAS (F. o. b. South Texas refineries)

Vis. Color	Prices Aug. 22 (Viscosity at 100° F., pour test 0)	Prices Aug. 15	Prices Aug. 8
200—No. 3 Pale.....	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
300—No. 3 Pale.....	6.50 – 7.25	6.50 – 7.25	6.50 – 7.25
500—No. 3½ Pale.....	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
750—No. 4 Pale.....	8.00 – 9.00	8.00 – 9.00	8.00 – 9.00
1200—No. 4 Pale.....	9.00 –10.00	9.00 –10.00	9.00 –10.00
200—No. 5½ Red Oil...	5.50 – 5.75	5.50 – 5.75	5.50 – 5.75
300—No. 5½ Red Oil...	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
500—No. 6 Red Oil.....	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
750—No. 6 Red Oil.....	7.50 – 8.50	7.50 – 8.50	7.50 – 8.50
1200—No. 5-6 Red Oil...	8.50 – 9.50	8.50 – 9.50	8.50 – 9.50

Note: Red oil prices shown above cover oils with blue cast; one or two refiners ask 0.5c to 1c per gallon higher for green cast red oils.

CALIFORNIA (F. o. b. California refineries)

Vis. Color	(Viscosity at 100° F.)		
100—No. 3.....	10.50	10.50	10.50
200—No. 3.....	13.25	13.25	13.25
300—No. 3.....	13.75	13.75	13.75
450—No. 3.....	14.25	14.25	14.25
550—No. 3.....	14.50	14.50	14.50
600—No. 3.....	14.50	14.50	14.50
200—No. 5.....	12.50	12.50	12.50
300—No. 5.....	13.25	13.25	13.25
400—No. 5.....	13.50	13.50	13.50
500—No. 5.....	13.75	13.75	13.75
600—No. 5.....	14.00	14.00	14.00
700—No. 7.....	14.25	14.25	14.25

CYLINDER STOCKS

MID-CONTINENT (F. o. b. Mid-Continent refineries)

(Prices represent quotations and sales).			
190-200 Vis. D at 210° Brt. St.....	21.00	23.00	23.00
150-160 Vis. D at 210° Brt. St.:			
0-10 cold test.....	20.00	22.00	22.00
10-25 cold test.....	19.50	21.50	21.50
25-40 cold test.....	19.00	21.00	21.00
150-160 Vis. E 210° Brt. St.....	19.00	21.00	21.00
600 St. Ref. Olive Green..	4.00 – 5.50	4.00 – 5.50	4.00 – 5.00
600 St. Ref. Dark Green..	3.50 – 4.50	3.50 – 4.50	3.50 – 4.00
Black Oil.....	2.00 – 2.25	2.00 – 2.25	2.00 – 2.25

PENNSYLVANIA (F. o. b. Western Penn. refineries) (A.S.T.M. Tests)

600 Steam Refined, filterable.....	13.50 –14.00	14.00 –14.50	14.00 –14.50
650 Steam Refined.....	16.50 –17.00	17.00 –17.25	17.00 –17.25
600 Flash.....	17.50 –18.00	18.00 –18.25	18.00 –18.25
630 Flash.....	22.50 –23.00	22.50 –23.00	22.50 –23.00
600 Warren E.....	16.00 –17.00	16.50 –17.00	16.50 –17.00
Bright Stock, No. 8 color, 140-150 vis. at 210°, 540-550 flash:			
10 pour test.....	27.00 –29.00	28.00 –30.00	28.00 –30.00
15 pour test.....	25.00 –27.00	26.50 –27.00	26.50 –27.00
25 pour test.....	23.00 –24.00	24.50 –25.00	25.00 –25.25
35 pour test.....	23.00 –24.00	24.50 –25.00	25.00 –25.25

††Only one refiner quoting. †Prices Nominal.

WAX

PENNSYLVANIA (Per pound, F. o. b. New York)

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
122-124 white crude scale a.m.p.....	1.85 – 1.875	1.80 – 1.85	1.75 – 1.85
124-126 white crude scale, a.m.p.....	1.85 – 1.90	1.85 – 1.875	1.85 – 1.875

**OKLAHOMA (Per pound in barrels; in a few instances, per pound in burlap bags; F. o. b. Oklahoma refineries.)

124-126 White Crude Scale, a.m.p.....	1.625– 1.875	1.625– 1.875	1.625– 1.875

GAS AND FUEL OIL

PENNSYLVANIA (For outside Pittsburgh district)

36-40 fuel oil.....	3.375– 3.50	3.375– 3.50	3.375– 3.50

OKLAHOMA (F. o. b. Oklahoma refineries)

38-40 straw Furnace Oil..	2.75 – 2.875	2.625– 2.75	2.375– 2.625
36-38 straw Furnace Oil..	2.625– 2.75	2.50 – 2.625	2.25 – 2.375
32-36 straw gas oil.....	1.625– 1.75	1.50 – 1.625	1.50 – 1.625
32-36 straw gas oil zero...	2.50	2.25 – 2.375	2.00 – 2.25
32-36 dark gas oil.....	1.625– 1.75	1.50 – 1.625	1.50
32-36 dark gas oil zero...	2.375– 2.50	2.25	2.00
28-30 fuel oil, zero (per bbl.)	†$0.725– 0.75	†$0.65 –$0.70	$0.55 –$0.575
28-30 fuel oil (per bbl.)...	†$0.60 – 0.625	†$0.55 –$0.575	$0.475–$0.50
26-28 fuel oil (per bbl.)...	$0.475– 0.525	$0.45 –$0.475	$0.45 –$0.475
24-26 fuel oil (per bbl.)...	$0.425–$0.45	$0.425–$0.45	$0.40 –$0.45
22-26 fuel oil (per bbl.)...	$0.40 – 0.45	$0.40 –$0.425	$0.40 –$0.425
18-22 fuel oil (per bbl.)...	$0.40 – 0.425	$0.40	$0.40
16-20 fuel oil (per bbl.)...	$0.375–$0.40	$0.375–$0.40	$0.375–$0.40
14-16 fuel oil (per bbl.)...	†$0.375	†$0.375	†$0.375

KANSAS (F. o. b. refinery Kansas destination)

38-40 straw Furnace Oil..	2.875– 3.00	2.875	2.75 – 2.875
36-38 straw Furnace Oil..	2.625– 2.75	2.625	2.50 – 2.625
32-36 straw gas oil.....	†2.375– 2.50	†2.125– 2.375	2.00 – 2.125
18-22 fuel oil (per bbl.)...	$0.40 –$0.425	$0.40 –$0.425	$0.40 –$0.425
10-14 fuel oil (per bbl.)...	$0.30 –$0.325	$0.30 –$0.325	$0.30 –$0.325

NORTH TEXAS (F. o. b. Wichita Falls district refineries)

38-40 straw Furnace Oil..	2.625– 2.75	2.50 – 2.625	2.50 – 2.625
38-40 p.w. treated Furnace Oil.....	2.75 – 3.00	††2.75 – 3.00	††2.75 – 3.00
32-36 gas oil, cracked....	2.125– 2.375	2.00 – 2.125	2.00
32-36 St. reduced gas oil..	1.625– 1.75	1.50 – 1.625	1.50 – 1.625
24-26 fuel oil (per bbl.)...	$0.45 –$0.475	$0.475–$0.50	$0.475–$0.50
20-24 fuel oil (per bbl.)...	$0.40 –$0.425	$0.425–$0.45	$0.425–$0.45
18-22 fuel oil (per bbl.)...	$0.35 –$0.375	$0.35 –$0.40	$0.35 –$0.40

WEST TEXAS (F. o. b. West Texas refinery, for unrestricted shipment)

30-32 gas oil.....	2.25	2.00	1.875– 2.00
28-30 gas oil, zero.....	2.25	2.00	1.875– 2.00
18-22 fuel oil (per bbl.)...	*0.40 – 0.50	*0.40 – 0.50	*$0.375–$0.40

NORTH LOUISIANA (N. La., Ark. and Miss. destination)

32-36 gas oil.....	2.25 – 2.375	2.25	1.875– 2.00
32-36 gas oil, zero.....	2.50 – 2.625	2.50	2.125– 2.25
14-16 fuel oil (per bbl.)...	$0.375–$0.425	$0.35 –$0.40	$0.35 –$0.40

ARKANSAS (Ark., N. La., and Miss. destination)

32-36 gas oil.....	2.375	2.00 – 2.125	1.875– 2.00
32-36 gas oil, zero.....	2.625	2.50	2.25
28-30 gas oil.....	2.375	2.25	2.00
20-24 fuel oil (per bbl.)...	$0.45 –$0.475	$0.45 –$0.50	$0.45 –$0.50
9-12 fuel oil (per bbl.)...	$0.375–$0.40	$0.375–$0.40	$0.375–$0.40

CALIFORNIA (F. o. b. refinery)

14-18 fuel oil (per bbl.)...	$0.50 –$0.60	$0.45 –$0.55	$0.50 –$0.60
14-18 Bunker oil (per bbl.)	$0.60 –$0.70	$0.60 –$0.70	$0.60 –$0.70
30-34 gas oil (per bbl.)...	$0.80 –$0.90	$0.75 –$0.90	$0.75 –$0.90
27 Plus Diesel oil (per bbl.)	$0.80 –$0.90	$0.75 –$0.90	$0.75 –$0.90

PETROLATUMS

PENNSYLVANIA (Per pound, in barrels, carload lots, f. o. b. Penna. refinery. In tank cars 5/8c to 3/4c per pound less.) Quotations are from majority of refiners.

Snow White.....	6.00 – 7.00	6.00 – 7.00	6.00 – 7.00
Lily White.....	5.00 – 6.00	5.00 – 6.00	5.00 – 6.00
Cream White.....	4.00 – 5.00	4.00 – 5.00	4.00 – 5.00
Light Amber.....	2.25 – 2.75	2.25 – 2.75	2.25 – 2.75
Amber.....	1.875– 2.25	1.875– 2.25	1.875– 2.25
Red.....	1.75 – 2.00	1.75 – 2.00	1.75 – 2.00

PETROLEUM COKE

**OKLAHOMA (F. o. b. Oklahoma refineries)

(Per ton in car lots)			
Lump.....	$3.00 –$4.00	$3.00 –$4.00	$3.00 –$4.00
Still run.....	$2.00	$2.00	$2.00
Breeze.....	$0.75 –$1.00	$0.75 –$1.00	$0.75 –$1.00

*Quotations only. **Prices represent quotations and sales.

New Refining Patents

Vapor Phase Cracking. U. S. P. 1-857 759, May 10, 1932, application filed March 3, 1927; Nathaniel E. Loomis, assignor to Standard Oil Development Co.

ONE of the major difficulties in the vapor phase cracking of heavy oils has been maintenance of an efficient cracking temperature during the reaction, without excessive carbon deposition and without the use of very large and expensive cracking chambers. This problem is solved by a new heating system which provides, not only for rapid transition from a non-cracking to a cracking temperature, but also for auxiliary heating to make up heat loss under conditions which do not promote carbon deposition.

A molten metal bath is used for the rapid final heating of the preheated oil to a cracking temperature; the cracked vapor is digested in a heat-insulated digester drum in which there is some heat loss; this heat loss is made up in a second heating coil, the vapors are digested again in another digester drum, and then passed through another heating coil into a third drum, from which they go to the fractionating tower.

What is Claimed

Heating relatively low-boiling oils to about 900°F. under a pressure of about 350-500 lbs. per sq. in. in a coil, then raising the temperature to about 950°F. in a conduit immersed in a molten bath, digesting the vapors in a heat-insulated zone in which some heat is lost, passing the oil through a heating conduit in which heat loss is made up, then to another digestion stage, and recovering the cracked product.

* * *

Filtering Acid Sludge. U. S. P. 1-856 141, May 3, 1932, application filed Sept. 22, 1928; David Dewey Stark, assignor to Associated Oil Co.

IN THE acid treatment of petroleum and its distillates, prompt and efficient separation of the treated oil from the acid and sludge is important for the sake of the quality of the product, but is difficult because the violent agitation necessary to effective treatment disperses the acid in the oil. Separation by settling is too slow, permitting deleterious secondary reactions to occur; separation by dilution causes a temperature rise which is also harmful.

It has been found that rapid, efficient separation is possible by filtering the reaction mixture under pressure through acid-proof aluminous filter plates, of which two or more are provided in series. The very fine sludge particles which pass the first plate are coalesced by the pressure, and so are stopped by the second plate. The filtered oil has only a very slight acidity, attributable to dissolved sulfur dioxide. The operation is nearly continuous; for maintenance of the filter plates it is only necessary that they be back-washed with water occasionally. Both the initial outlay for equipment and the operating costs are low as compared with other methods.

What Is Claimed

Filtering sludge from oils by forcing a mixture of oil and reaction products through an aluminous abrasive filter plate, so that the acid reaction products are retained by the filter plate and removed by gravity, forcing a washing medium back through the plate to remove acid reaction products within the filter, thus leaving the filter wet, and repeating the filtration, the major portion of the sludge being retained on the filter face opposed to the direction of passage of the oil.

* * *

Oil Hydrogenation. U. S. P. 1 859-062, May 17, 1932, application filed March 13, 1929 and in the Netherlands April 16, 1928; Hein Israel Waterman, assignor to De Bataafsche Petroleum Mattschappij.

IN THE catalytic hydrogenation of mineral or tar oils or other fuels to produce gasoline and similar fractions, the reaction is difficult to control and there is a pronounced tendency to form undue amounts of fixed gases, asphalts and other products less desirable than the more valuable low-boiling distillates.

It has been found that better control is attained, and yields of the valuable hydrocarbons are much improved, by a 2-stage process in which the temperature is relatively low in the first stage, production of gasoline hydrocarbons being small, whereas a higher temperature is applied in the second stage to increase the formation of such products. By avoiding gasoline formation in the first stage, the difficulties caused by carbon deposition are greatly lessened. The preferred catalyst is a contact mass containing compounds of molybdenum and of iodine.

What Is Claimed

Heating carbonaceous material under pressure in presence of hydrogen and a contact mass containing molybdenum and iodine, at elevated temperature, in such a way as to avoid intensive splitting to form hydrocarbons of low molecular weight; withdrawing vapors of the lower-boiling reaction products to separate them from the high-boiling residue while the reaction mass is still hot; and again heating the residue in presence of hydrogen and a like contact mass to form lower-boiling hydrocarbons.

* * *

Refining Gasolines. U. S. P. 1 862-003, June 7, 1932, application filed Nov. 25, 1927; Paul J. Carlisle and Chas. R. Harris, assignors to Roessler & Hasslacher Chemical Co.

IN THE usual methods for purifying crude gasolines, there is much difficulty due to fouling of treating agents and apparatus with polymers of impurities or with other products of the treatment. Because recovery of treating agents is thus prevented, inexpensive reagents must be used even though they are inferior.

It has now been found that the alkali metal method of refining gasolines can be applied in such a way as to avoid this difficulty, relatively large amounts of oil being treated per unit of reagent consumed, with only negligible losses of unreacted alkali metal. This is accomplished by suspending the alkali metal in a liquid such that the gasoline can be treated and withdrawn as vapor. High-boiling oils, for example, are suitable for use as the suspension medium.

What Is Claimed

Passing hydrocarbons liquid at the reaction temperature into a treating medium comprising alkali metal suspended in liquid hydrocarbon, washing contaminating by-products from the alkali metal by agitation with the suspending medium, and removing treated hydrocarbon from the treating medium as liquid effluent.

* * *

Refining Cracked Gasolines. U. S. P. 1 862 507, June 7, 1932, application filed June 26, 1926; Thomas T. Gray, assignor to Gray Processes Corp.

IN THE vapor phase catalytic refining of cracked gasolines by contact with a solid adsorbent such as fuller's earth, the effect is improved and the operation is simplified and rendered more economical than hitherto by a new apparatus for application of the catalyst.

In the new device the fuller's earth is supported on a perforate shelf which is permeable to the vapor being treated and to liquid condensates, but not to the solid catalyst. The apparatus can be inserted in existing distillation plants, requiring few additional parts and no additional attention. Without large expenses for machinery and equipment, it yields a better product than has hitherto been obtained in commercial practice.

What Is Claimed

In oil treating apparatus, a still and fractionator, a tower containing material for polymerizing unstable unsaturated hydrocarbons, this material being supported for free drainage, means for passing vapor from the fractionator to the tower above the support and withdrawing treated vapor from a lower point, and separate means for draining liquid polymers from the tower.

Consider the Advantages of a CONEWANGO *Connection*

Buyers who call in a Conewango sales representative are insuring their program by backing it up with a direct refinery connection that fulfills every requirement in Pennsylvania lubricating oils.

●

We can duplicate any specifications or supply one of Conewango's famous H-M processed motor oils at no premium.

●

We are in a position to supply Sharples dewaxed oils with pour points ranging from 0° to 30°.

●

If you compound, Conewango genuine H-M bright stock and neutral oils will give your product the quality that wins and holds customer good will and enthusiasm.

Products of
CONEWANGO
Genuine H-M Bright Stock
H-M Processed Sharples Motor Oils
150, 180, and 200 Neutral Oils
Tractor and Aircraft Oils
Warren E and D Stock
600 and 650 Steam Refined
600 Flash Steam Refined
High Melting Point Black Wax
Complete Line of Pennsylvania Products
Refinery Member Pennsylvania Grade Crude Oil Association

If you have no Pennsylvania Grade Crude Oil Association permit, our own brand and permit are available for your use. Conewango products are supplied in car load and tank car lots. Our tank car equipment includes single compartment cars in 4,000, 6,000, and 8,000 gallon capacities; double and triple compartment cars in 4,500 and 6,000 and 8,000 gallon capacities.

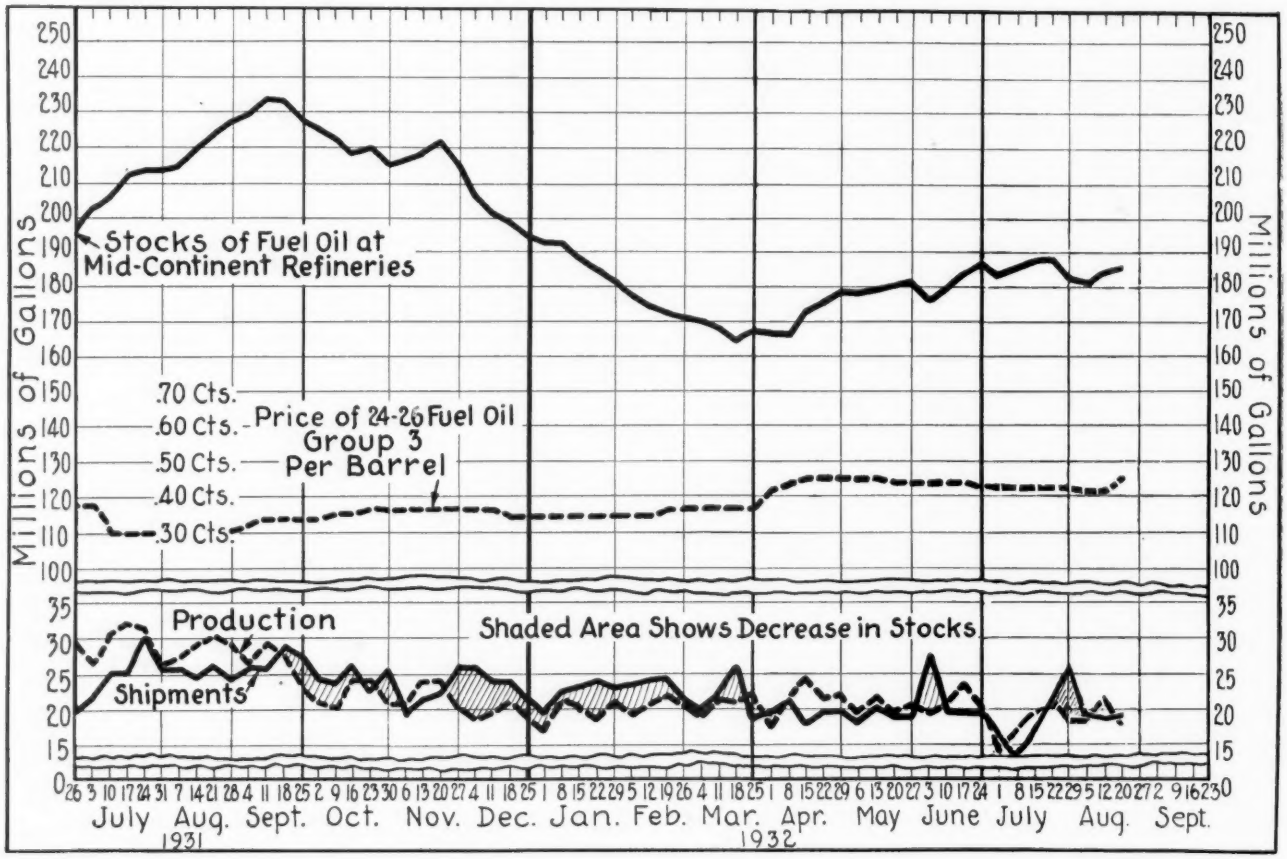
●

There are real advantages in dealing with Conewango. Write today and one of our qualified staff of sales representatives will call promptly and without obligation. All inquiries should be addressed to The Conewango Refining Company at Warren, Pennsylvania.

Call CONEWANGO *for*
PEDIGREED PENNSYLVANIA PRODUCTS

Barometer of Mid-Continent Refinery Market—Week Ending Aug. 19

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, from Reports Made by 76 Plants to National Petroleum News



California Refinery Market

Inquiry More Active For Case Lots

LOS ANGELES, Aug. 20

EXCEPT for a few scattered inquiries from Pacific foreign buyers seeking quotations on package goods and an abundance of cheap gasoline in domestic trading centers, California petroleum markets showed little change the past week.

Following the recent activity in heavy oils, when some seven cargoes of furnace oil were sold for delivery to the east coast, inquiry fell off and local export traders do not anticipate new interest in these markets for another 30 days.

Although the last sale of heating oil was reported made at a price of about 3.25 cents a gallon, delivered, it was indicated future quotations would be higher to range in the neighborhood of 3.5 to 3.625 cents.

Interest of eastern buyers in bulk California gasoline continued at low ebb with no active inquiries reported. Current nominal quotations for 65 octane gasoline ranged from 5.5 cents up, indicating that local suppliers were not interested in other than their contractual obligations.

Fair inquiry from Oriental countries for cased prime white kerosine was reported, and several spot sales of 10,000-case lots were made by independent packers at prices of $1.05 to $1.15 a case. New inquiries also were in the market from New Zealand and Australian buyers seeking quotations on kerosine and gasoline for package shipment.

Recessions in independent quotations on tank car and tank-truck-and-trailer movement of gasoline to Los Angeles Basin points threatened retail and wholesale price structures. In contrast to spot-car quotations of 8 to 8.5 cents a gallon by large independents and major companies, several small refiners were reported unloading accumulated stocks with offerings of 6 to 6.5 cents. These prices are exclusive of all taxes.

The heavy oil market was slightly improved and refiners reported a good demand for 32-34 gravity gas oil by citrus growers for use in smudging against frost. Current prices ranged from $0.80 to $0.95, as compared with previous low quotations of $0.65 to $0.75 per barrel.

Offers Reward To Catch Bulk Plant Thieves

TULSA, Aug. 20.—The Kansas Oil Men's Association has offered a reward of $50 for information leading to the arrest and conviction of persons who have recently been twisting valves on bulk storage tanks in certain sections of Kansas and Nebraska and permitting the contents to flow into the sewers.

The latest report came from Oberlin, Kan., where approximately 40,000 gallons of gasoline and other refined oils were allowed to flow into the sewers. The Kansas association has asked its members to contribute to the reward to make it a larger total.

Pennsylvania Markets

Lube Prices Lower

CLEVELAND, Aug. 22.—Lubricating oils suffered a rather severe setback in the western Pennsylvania refinery market last week. Bright stock prices were down 1 to 1.5 cents a gallon and neutral oils were off in amounts ranging from 0.25 to 0.75 cent. Motor oils, leading marketers said, were quoted proportionately lower.

With the exception of a slight price recession in kerosine, other commodities showed little change from prices that have prevailed for several weeks. Fresh demand for the majority of oils was relatively light.

There were persistent reports of secret price cutting bright stock being indulged in by some refiners early this week. These reports carried sufficient weight with some refiners to cause them openly to reduce their quotations. The 25 pour test No. 8 color stock was offered in several directions at 23 cents against a previous low of 24.5 cents.

The lower prices for bright stock failed to stimulate demand for lubricating oils generally. Revival of buying has been looked for since early this month; to date there has been only spasmodic small lot buying since the pre-tax flurry and the trade generally looks for renewal of buying interest to appear in a large way momentarily although it was believed in some quarters that the reaction in prices last week would tend to encourage buyers to remain out of the market as long as possible.

Cylinder stocks dropped 0.5 to 0.75 cent a gallon in sympathy with bright stock. Domestic buying was virtually at a standstill; several sales were reported for foreign shipment.

Neutral oils were easy. Supply continued well in excess of demand and general market prices were off 0.25 to 0.75 cent. With neutrals also there was considerable secret price cutting reported.

Despite a reduction of 0.5 to 1 cent a gallon in retail gasoline prices throughout Pennsylvania and western New York, tank car prices in Pennsylvania remained steady. No surplus gasoline was found in any part of the field although several refiners reported the territory to which they could ship to open market buyers has narrowed down considerably recently due to encroachment of low priced gasoline from the seaboard on the east and from Indiana, Illinois and Kentucky on the west. High octane gasoline from the Atlantic coast was being delivered at Buffalo at less than the current market for Pennsylvania, U. S. Motor delivered Buffalo.

Kerosine prices were off 0.125 cent. Fall buying was just beginning

SKILLED
SUPERVISION

Guarantees the Quality of Gulf Products

COASTAL AND PARAFFINE CRUDES
GASOLINE—LUBRICATING OILS
NAPHTHA—GAS—OILS
WAX—PETROLEUM COKE
CYLINDER—ENGINE—CORDAGE

Gulf Refining Company

General Sales Offices:
PITTSBURGH, PA.

District Sales Offices: New York, Boston, Philadelphia, Louisville, Atlanta, Houston, New Orleans

BETHLEHEM
WAX PLANT EQUIPMENT

Filter Presses
Wax Distillate Chilling Machines
Wax Testing Presses
Wax Moulding Presses
Scale Wax Cooling Drums
Paraffine Wax Sweater Plants
Complete Wax Plants designed and built
Stills, Towers, Condensers, and other Oil Refinery Equipment
Oil Burning Systems

BETHLEHEM STEEL COMPANY, *General Offices: Bethlehem, Pa.*

District Offices: New York, Boston, Philadelphia, Baltimore, Washington, Atlanta, Pittsburgh, Buffalo, Cleveland, Cincinnati, Detroit, Chicago, St. Louis

Pacific Coast Distributor:
Pacific Coast Steel Corporation
San Francisco, Los Angeles, Portland, Seattle, Honolulu

to appear, several sellers said, and they expected kerosine to regain the lost ground without much trouble. The 0.5-cent reduction in kerosine tank wagon prices throughout Pennsylvania by Atlantic Refining Co. had little effect on the tank car market.

Fuel oil was steady. Wax continued to show improvement in price although demand has eased slightly from higher rate of the previous two weeks.

Eastern Domestic Markets

Gasoline Prices Down 0.5 To 0.75 Cent

Staff Special

NEW YORK, Aug. 20

LOWER prices appeared in eastern gasoline markets rather abruptly during the week ended Aug. 20. Tank car markets at New York harbor receded 0.25 cent early in the week, and a few days later underwent further reductions of 0.25 to 0.5 cent. Baltimore and Philadelphia markets followed the price revisions in New York.

In the midst of the unsettled period of tank car prices the Atlantic Refining Co. reduced tank wagon and service station prices 0.5 cent in western Pennsylvania and 1 cent in eastern Pennsylvania and Delaware, with the exception of Philadelphia and Wilmington, which have reduced only a 0.5 cent. On the same date the retail price of kerosine was reduced 1 cent throughout Pennsylvania and Delaware.

Standard Oil Co. of New York reduced tank wagon and service station prices of gasoline 1 cent in Buffalo, Rochester, and Syracuse on Aug. 17. On the same date, the company advanced service station prices 1 cent at Boston and Providence.

Considerable confusion prevailed throughout the trade as to the policy of marketing third grade gasoline. In most cases the third grade product has been marketed at a fixed differential of 2 cents under the service station price for the regular grade. In some cases, however, the price for the third grade has been adjusted to meet competition. It has been said that consumption of the lower priced gasoline has been surprisingly high and that those companies which offer only one grade of gasoline were being forced to meet the shifting of gallonage by lowering prices for their product. As the week ended there were reports that the major company differences on this subject would be settled and a definite policy established in the near future.

Also among the favorable news was the report that the tank wagon and service station prices at New York City would be advanced from the prevailing 10.5-cent price level. While it was not expected the advance would be a very sizable one in view of declining consumption. The revision would place prices nearer the statewide level.

Tank car markets which have been fairly steady during July and early August at 7.5 cents f.o.b. New York suddenly featured increased activity at lower prices early in the week just ended. Liquidation of gasoline stocks was reported in all corners of the market. The recession in prices ranged from a 0.5 to 0.75 of a cent. The bulk market at the Gulf showed no signs of slipping under the minimum 5.5-cent level which has prevailed there for some time. Marketers generally believed that little change, if any, would take place in this basic market.

Philadelphia and Baltimore markets declined in similar amounts in sympathy with the New York situation. Tank car prices were 6.75 to 7 cents for the above 65 octane grade and the lower octane materials also was quoted 0.25 cent lower. Barge transactions were usually 0.25 cent under tank car prices. Fuel oils were said to be available at lower prices, but no material change was noted in the market.

Boston and Providence tank car prices showed advancing tendencies late in the week. So far during the month most sales of gasoline in the wholesale market at Boston have been made at 6.5 cents. Late reports from that market indicated that sellers were advancing to 7 cents. However, service station operators were still offering 7 gallons for $1.00 quite generally.

Burning oils in the Boston area were depressed. Prices in some quarters of the market were 0.25 cent lower. Kerosine and gas oil were reduced 0.25 cent by one refiner late in the week. However, it was observed by those taking a longer view that prospects were good for an excellent burning oil season in New England. The large number of oil burners in operation in that territory promise a good demand for kerosine and burning oils. Also it was noted that stocks of kerosine and buring oils in the southern and interior refinery regions are in good balance with prospective demand.

One inquiry for American gasoline was noted from abroad. A German buyer inquired for approximately 60,000 barrels of 64-66, 375 end point gasoline for early October lifting. This inquiry was entered a few days after American quotations on the lower end point gasolines had been advanced 0.25 cent, and it was believed in some quarters that the inquiry was designed to test the steadiness of the higher prices. No sales were reported.

Reports from the English tanker trade during the week were of an interesting nature. Black Sea fixtures were numerous. Numerous shipments of both light and heavy oils were noted for ports in the Far East as well as Europe. Among the business was a charter closed for a sizable cargo of uncracked gas oil to be shipped from Batum to a Montreal consignee. There were reports that a cargo of Roumanian kerosine was on its way to the United States, but no trace of the boat was to be discovered.

Prices for cargo lots of light and heavy oils at the American Gulf were generally unchanged as the week ended.

Wax Markets

Prices Tend Upward

NEW YORK, Aug. 20.—Wax markets at New York and New Orleans were less active during the week just ended than during the previous week. Prices showed advancing tendencies, although little change was noted. It was said by some marketers that the stock position of scale waxes was improved and that sizable buyers found little distress material on the market. The markets for the fully refined grades showed little change either in price or demand over the previous week.

---

3 Types of Stations

SCRANTON, Pa. — International Corresponding Schools, in its new course on Service Station Management, has divided service stations into three groups, based on merchandise and services sold, to designate various types of outlets.

These classifications are: A, stations selling gasoline, motor oil, lubrication, washing, wheel aligning, brake testing and relining, tires, batteries, accessories, tire repairing, battery recharging and repairing; B, those selling gasoline, motor oil, lubrication, tires, batteries, and accessories; and C, those selling gasoline, motor oil, and lubrication.

A national survey of stations indicated much confusion in designating various types of stations, so the school devised the A, B, and C classifications.

The new Schrader Low Pressure Gauge (No. 6796)

For the exacting requirements of the new low-pressure tires

"KEEP inflated to exact pressure recommended.". . . This warning of the manufacturers of the new "doughnut" type of balloon tires means that the user must do just that in order to get from them the full riding advantages and the maximum mileage.

A few pounds over or under the recommended pressure makes a big difference in results. An absolutely dependable, accurately calibrated special pressure gauge is needed. Every low-pressure tire user should have one in his car at all times. Here it is:

The new Schrader Low Pressure Gauge is calibrated from 5 to 25 pounds in one-pound units. (Few inflation devices on the market today register as low as 10 pounds). Latest type of construction, including flat-bar indicator and ribbed-ball foot for sure finger grip. No delicate or complicated mechanism to get out of order. The name "Schrader" guarantees its quality!

The growing popularity of low-pressure tires is creating a constantly increasing market for this indispensable gauge. Stock it *and sell it.* (You especially need one yourself in your service work). Order through your regular supply house. A. Schrader's Son, Inc., Brooklyn, Toronto, London.

Schrader

Reg. U. S. Pat. Off.

TIRE VALVES TIRE GAUGES

Makers of Pneumatic Valves since 1844

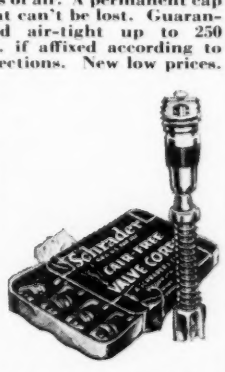
Two other Schrader products that should be in every dealer's stock.

Schrader Dublchek Valve Cap

does away with ordinary valve cap and dust cap. Saves four operations in inflating every tire. . . . Inflate, deflate and gauge pressure right through the cap. A double check against loss of air. A permanent cap that can't be lost. Guaranteed air-tight up to 250 lbs. if affixed according to directions. New low prices.

Schrader "Cair-Free" Valve Core

The new standard valve core of the tire industry. More rugged. Higher heat resistance. Greater dependability. Longer life. In cellophane - wrapped metal boxes of four. "Cair-Frees" are No. 6000 in the Schrader line. New low prices.



Be sure it's a Schrader—look for the name

On The Lazy Bench

Bereft

He: "A month ago my wife left me without any reason."

She: "I felt sure someone had left you without it."

—The Gas Line
West Penn Oil Co.

* * *

Bus driver: "Madam, that child will have to pay full fare, he's over 5 years old."

Madam: "Why, I've only been married four years."

Bus Driver: "Never mind the true confessions, let's have the money."

—The Firing Line
Richfield Stations, Inc.

* * *

And Love Is Blind?

The bridegroom was in a poetic frenzy as he strolled along the seashore.

"Roll on, thou deep and dark blue ocean, roll," he recited to his bride.

"Oh, Gerald," she exclaimed, "how wonderful you are. It's doing it."

—Just Friendly Chats
Oil Service, Inc.

* * *

At one of the beach towns the other day a girl landed a fish weighing 130 pounds. It stands five feet six inches high, wears plus-fours, and always takes a cigar to the girl's father when it makes a call.

—Union Oil Bulletin
Union Oil Co.

* * *

Mother: "What did mama's little baby learn at school today?"

Son: "I learned two kids not to call me mama's baby."

—Skelly News
Skelly Oil Co.

* * *

Old Brown (lecturing his granddaughter): "I never see a blush on a girl's face now. In my day it was very different."

Flapper: "What did you say to 'em, granddad?"

West Penn Oil Co.
—The Gas Line

* * *

The preacher, at the end of a stirring address, shouted: "Hands up all those who want to go to Heaven!"

A quiet little man remained seated, and the preacher shouted at him: "Don't you want to go to Heaven?"

In a thin voice the little one replied: "Not immediately."

—Harvester World
International Harvester Co.

* * *

A Carolina darky, a blacksmith, recently announced a change in his business as follows:

"Notice: De copardnership heretofore resisting between me and Mose Skinner is hereby resolved. Dem what owes de firm will settle with me, and what de firm owes will settle with Mose."

—The Oil Can
Illinois Petroleum Marketers

PYROIL

SIMPLY ADD TO GAS AND OIL

LUBRICATING GASOLINE

One gallon of PYROIL "A" treats 640 gallons of gasoline . . . nets 128% or more extra profit . . . plus amazing increased repeat business!

BOOSTS GALLONAGE 600%

The spectacular success everywhere of **PYROIL LUBRICATING GASOLINE** offers stations and dealers the greatest means of *trade stimulation* today.

One station in Wisconsin sold 6000 gallons the first 2 days!

Another sold 5000 gallons first 2 days.

Another boosted from 125 gallons daily to 800 gallons in a day! Another increased sales 60%. Another's increased business induced treating all gas and oil, (*seven different brands*) with *Pyroil!*

ONE STATION IN NOVA SCOTIA INCREASED GALLONAGE FROM 150 DAILY TO 1000 DAILY IN 4 DAYS!

Sold, also, in cans for crankcase and top oil treatment.

The outstanding lubricating development of modern times. Used and endorsed by leading industries.

Write for the facts—and a *free* copy of the interesting "*Story of Pyroil.*"

Manufactured and Guaranteed by

PYROIL COMPANY

W.V. KIDDER *President*

99 LA FOLLETTE AVE. LA CROSSE WIS. U.S.A.

Complete Seaboard Markets

Prices on this page do not include federal tax levied on some products

Eastern Domestic Markets

(Prices for tank car lots, f. o. b. refinery or seaboard terminal, representing majority of sales and quotations. Prices shown below do not include inspection tax levied in Florida and South Carolina.)

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
U. S. MOTOR GASOLINE:			
Below 65 Octane Number			
New York harbor	6.50 – 6.75	7.25	7.25
Boston	6.75 – 7.00	6.50 – 6.75	7.00 – 7.25
Providence	6.75 – 7.00	6.50 – 6.75	7.00 – 7.25
Philadelphia district	6.50 – 6.75	7.25	7.25
Baltimore district	6.50 – 6.75	7.00 – 7.25	7.25
Norfolk district	7.50	7.50	7.50
Charleston district	7.50	7.50	7.50
Savannah district	6.50 – 7.00	6.50 – 7.00	6.50 – 7.00
Jacksonville district	6.50 – 7.00	6.50 – 7.00	6.50 – 7.00
MOTOR GASOLINE:			
65 Octane Number and Above			
New York harbor	6.75 – 7.00	7.50	7.50
Portland district	7.50	7.50	7.50
Boston district	7.00 – 7.25	6.75 – 7.00	7.00 – 7.25
Providence district	7.00 – 7.25	6.75 – 7.00	7.00 – 7.25
Philadelphia district	6.75 – 7.00	7.50	7.50
Baltimore district	6.75 – 7.00	7.25 – 7.50	7.50
Norfolk district	7.75	7.75	7.75
Charleston district	7.75	7.75	7.75
Savannah district	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
Jacksonville district	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
AVIATION GASOLINE:			
Below 73 Octane Number			
New York harbor	9.00 –10.00	9.00 –10.00	9.00 –10.00
Philadelphia	9.00 –10.00	9.00 –10.00	9.00 –10.00
Baltimore	9.00 –10.00	9.00 –10.00	9.00 –10.00
Boston	9.00 –10.00	9.00 –10.00	9.00 –10.00
73 Octane Number and Above (Octane determination basis 300° F; 600 R.P.M.)			
New York harbor	11.00 –12.00	11.00 –12.00	11.00 –12.00
Philadelphia	11.00 –12.00	11.00 –12.00	11.00 –12.00
Baltimore	11.00 –12.00	11.00 –12.00	11.00 –12.00
Boston	11.00 –12.00	11.00 –12.00	11.00 –12.00
WATER WHITE KEROSINE			
New York harbor	5.50	5.50	5.50
Philadelphia district	5.50	5.50	5.50
Baltimore district	5.50	5.50	5.50
Boston district	5.25 – 5.50	5.50	5.50
BURNING OILS:			
New York harbor:			
Furnace oil No. 1	5.50	5.50	5.50
Heating oil No. 2	4.50	4.50	4.50
Distillate oil No. 3	4.00 – 4.50	4.00 – 4.50	4.00 – 4.50
Industrial oil No. 4	4.00	4.00	4.00
Philadelphia District:			
Furnace oil No. 1	5.50	5.50	5.50
Heating oil No. 2	4.50	4.50	4.50
Distillate oil No. 3	4.00 – 4.50	4.50	4.50
Boston district:			
Furnace oil No. 1	4.75 – 5.00	5.00	5.00
Heating oil No. 2	4.00 – 4.25	4.25	4.25
Distillate oil No. 3	3.75 – 4.00	4.00	4.00
Industrial oil No. 4	3.50 – 4.00	3.50 – 4.00	3.50 – 4.00
GRADE C BUNKER OIL (Lighterage 5c per bbl. additional)			
New York harbor	$0.85	$0.85	$0.85
Philadelphia district	$0.85	$0.85	$0.85
Boston district	$0.85	$0.85	$0.85
DIESEL OIL			
New York harbor	$1.65	$1.65	$1.65
GAS OIL: 28-34 Gravity			
New York harbor	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
Philadelphia district	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25

New York Export Market

(Lubricating oils in cents per gal. in bbls. F. a. s. New York. Paraffin oil prices represent bulk shipment in tankers f. a. s. New York.)

	Aug. 22	Aug. 15	Aug. 8
CYLINDER OILS (Pennsylvania Products)			
Bright stock, No. 8 color	29.00 –30.00	30.00 –31.00	30.00 –31.00
Bright stock, No. 6½ color diluted	28.00 –29.00	29.00 –30.00	29.00 –30.00
600 D filtered	26.00 –28.00	26.00 –28.00	26.00 –28.00
600 Warren E filtered	21.00 –22.00	22.00 –23.00	22.00 –23.00
600 stm. refd, unfiltered	19.00 –20.00	20.00 –21.00	20.00 –21.00
650 stm. refd. unfiltered	21.00 –22.00	22.00 –23.00	22.00 –23.00
600 flash steam refined	22.00 –23.00	22.50 –23.50	23.00 –24.00
630 flash, steam refined	27.50 –29.00	27.50 –29.00	27.50 –29.00
RED PARAFFIN OILS (Vis. 100°)			
300 vis. No. 6½ color	9.50	9.50	9.50
250 vis. No. 6 color	9.00	9.00	9.00
200 vis. No. 6 color	8.25	8.25	8.25
PALE PARAFFIN OILS (Vis. 100°)			
230 vis. No. 3¾ color	10.00	10.00	10.00
180 vis. No. 3¼ color	9.50	9.50	9.50
100 vis. No. 2¼ color	5.00	5.00	5.00

Wax Market

(Prices in cents per pound, f.a.s. carload lots. Tests made by A. S. T. M. method with melting points converted into A. M. P. by adding 3° F.)

NEW YORK	Aug. 22	Aug. 15	Aug. 8
124-126 Yellow crude scale	1.75 – 1.875	1.75 – 1.875	1.70 – 1.75
122-124 White crude scale	1.875– 2.00	1.875– 2.00	1.75 – 1.875
124-126 White crude scale	1.875– 2.00	1.875– 2.00	1.75 – 1.875
123-125 Fully refined	2.75 – 3.00	2.75 – 3.00	2.75 – 3.00
125-127 Fully refined	2.875– 3.00	2.875– 3.00	2.75 – 3.00
128-130 Fully refined	3.125– 3.25	3.125– 3.25	3.125– 3.25
130-132 Fully refined	3.375	3.375	3.375
133-135 Fully refined	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
135-137 Fully refined	4.25	4.25	4.125– 4.25

NEW ORLEANS	Aug. 22	Aug. 15	Aug. 8
124-126 Yellow crude scale	1.75 – 1.875	1.75 – 1.875	1.70 – 1.75
122-124 White crude scale	1.875– 2.00	1.875– 2.00	1.75 – 1.80
124-126 White crude scale	1.875– 2.00	1.875– 2.00	1.75 – 1.80
123-125 Fully refined	2.75 – 3.00	2.75 – 3.00	2.75 – 3.00
125-127 Fully refined	2.875– 3.00	2.875– 3.00	2.75 – 3.00
128-130 Fully refined	3.125– 3.25	3.125– 3.25	3.125– 3.25
130-132 Fully refined	3.375	3.375	3.375
133-135 Fully refined	4.125– 4.25	4.125– 4.25	4.125– 4.25

Gulf Coast Bulk Market

(Prices are f. o. b. Gulf oil terminals representing sellers' opinions except prices specified to the contrary. Prices cover bulk shipments of 20,000 barrels or more, unless otherwise noted.)

	Prices Aug. 22	Prices Aug. 15	Prices Aug. 8
For Domestic Shipment			
U. S. MOTOR GASOLINE:			
Below 65 octane number	5.50 – 5.75	5.50 – 5.75	5.50 – 5.75
65 octane number and above	5.75 – 6.00	5.75 – 6.00	5.75 – 6.00
KEROSINE			
41-43 w.w.	4.25 – 4.50	4.25 – 4.50	4.25 – 4.50
For Export Shipment			
GASOLINE			
U. S. Motor gasoline	4.00 – 4.50	4.00 – 4.50	4.00 – 4.25
60-62, 400 e.p. gasoline	4.125– 4.75	4.125– 4.75	4.00 – 4.50
61-63, 390 e.p. gasoline	4.25 – 5.00	4.25 – 5.00	4.00 – 4.75
64-66, 375 e.p. gasoline	4.25 – 5.25	4.25 – 5.25	4.00 – 5.00
U. S. Motor, (cases cargoes)	$1.50	$1.50	$1.50
64-66, cases (cargoes)	$1.60	$1.60	$1.60
KEROSINE			
41-43 water white	4.50	4.50	4.50
41-43 prime white	4.25	4.25	4.25
Water white, cases (cargoes)	$1.40	$1.40	$1.40
Prime white, cases (cargoes)	$1.30	$1.30	$1.30
(For Domestic and/or Export Shipment)			
GAS and BUNKER OILS			
*26-30 translucent gas oil	3.00 – 3.125	3.00 – 3.125	3.00 – 3.125
*30 plus translucent gas oil	3.25 – 3.375	3.25 – 3.375	3.25 – 3.375
Diesel Oil ships' bunkers	$1.50	$1.50	.....
Grade C bunker oil, for ships' bunkers, per bbl.	$0.70	$0.70	$0.70
Grade C bunker oil, per bbl. in cargoes	$0.55	$0.55	$0.55
*Less than ½ of 1% sulphur.			
MEXICAN CRUDE AND BUNKER OILS (f.o.b. Steamer, Tampico)			
Heavy Panuco crude taxes to be paid, per bbl.	$0.455–$0.48	$0.455–$0.48	$0.455–$0.48
Grade C bunker oil for bunkering, taxes paid, per bbl.	$0.70	$0.70	$0.70
SOUTH TEXAS LUBRICATING OILS (Viscosity at 100° F. cold test 0 Tanker, f. o. b. Gulf oil terminals.)			
200 vis. No. 3 unfiltered pale	5.75 – 6.00	5.75 – 6.00	5.75 – 6.00
300 vis. No. 3 unfiltered pale	6.25 – 6.75	6.25 – 6.75	6.25 – 6.75
500 vis. No. 3½ unfiltered pale	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
750 vis. No. 4 unfiltered pale	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
1200 vis. No. 4 unfiltered pale	8.50 – 9.00	8.50 – 9.00	8.50 – 9.00
200 vis. No. 5-6 red oil	5.00 – 5.25	5.00 – 5.25	5.00 – 5.25
300 vis. No. 5-6 red oil	5.50 – 6.00	5.50 – 6.00	5.50 – 6.00
500 vis. No. 5-6 red oil	6.25 – 6.75	6.25 – 6.75	6.25 – 6.75
750 vis. No. 5-6 red oil	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
1200 vis. No. 5-6 red oil	8.00 – 8.50	8.00 – 8.50	8.00 – 8.50

Note: Red oil prices shown above cover oils with blue cast; one or two refiners ask 0.5c to 1c per gal. higher for green cast red oils.

Pacific Export Market

(Quotations are at seaboard, Los Angeles, in cargo lots, cents per gallon, except where otherwise noted.)

	Aug. 22	Aug. 15	Aug. 8
Gasoline, U. S. Motor, 53-55 Gravity	4.75 – 5.25	4.75 – 5.25	4.75 – 5.25
Gasoline, 400 e.p. blend 65 Octane No. and above	5.25 – 6.00	5.25 – 6.00	5.00 – 6.00
Gas oil, 30-34 per bbl.	$0.85 –$0.95	$0.85 –$0.95	$0.85 –$0.95
Diesel oil, 27 plus, per bbl.	$0.85 –$0.95	$0.85 –$0.95	$0.85 –$0.95
Bunker oil, 14-18 per bbl.	$0.60 –$0.72	$0.60 –$0.72	$0.60 –$0.72
Fuel oil, 14-18 per bbl.	$0.55 –$0.65	$0.55 –$0.65	$0.55 –$0.65
Kerosine, 38-40 w.w., 150 fire, per gal.	3.75 – 4.25	3.75 – 4.25	3.50 – 4.25
Cased Goods			
Gasoline, U. S. Motor	$1.45 –$1.60	$1.45 –$1.60	$1.45 –$1.60
Gasoline, 400 e.p. blend	$1.55 –$1.70	$1.55 –$1.70	$1.55 –$1.70
Kerosine, 38-40 w.w., 150 fire	$1.25 –$1.35	$1.25 –$1.35	$1.25 –$1.35
Kerosine, prime white	$1.05 –$1.20	$1.05 –$1.20	$1.05 –$1.20

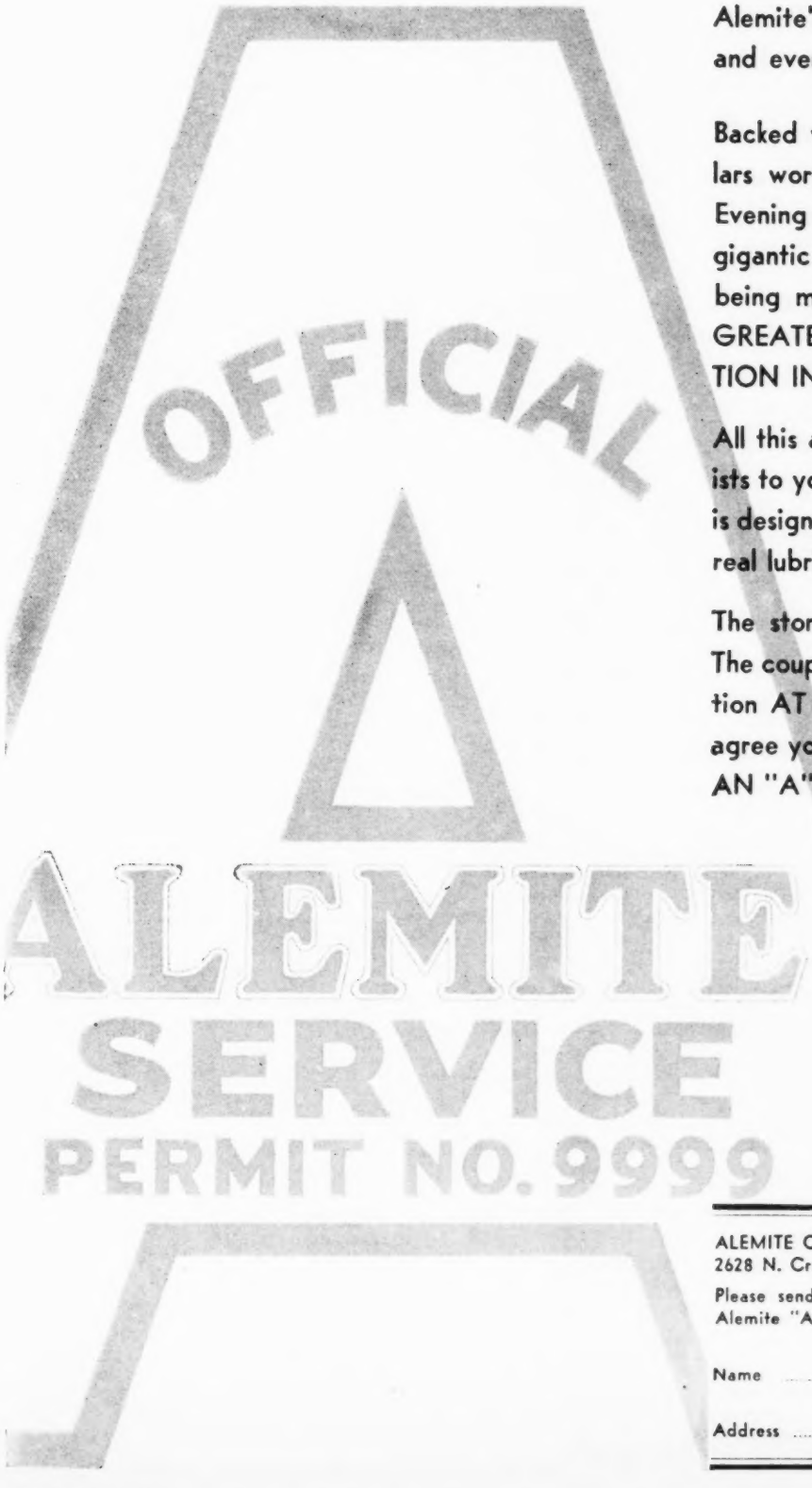
Tanker Rates

(Approximate tanker freight rates to Continental ports, in shillings per ton of 2240 pounds, British sterling) to U. S. ports, cents per barrel

Aug. 22	Crude &/or Fuel		Refined Oil &/or Spirits	
	Last Paid	Owners Ask	Last Paid	Owners Ask
Calif-U.K./Continent*	12/6	15/-20/	17/6	17/-18/
Gulf-U.K./Continent*	8/6	8/6-10/	9	9/-10/
Calif-N. Atlantic (not E. of N. Y.)	30c	40-45c	40c	40-45c
Gulf-N. Atlantic** (not E. of N. Y.)	14c	15-16c	14c	15-16c

*Continental ports in range between Bordeaux and Hamburg, both inclusive
**Venezuela loading same rate; Tampico, 2 to 3c per bbl. additional.

THE *BIGGEST PROFIT STORY* IN THE AUTOMOTIVE FIELD



Alemite's new "A" plan is a many-sided one and every side spells more profits for you.

Backed with hundreds of thousands of dollars worth of advertising in the Saturday Evening Post and on tens of thousands of gigantic billboards, the new "A" plan is being merchandised to motorists with the GREATEST ADVERTISING APPROPRIATION IN THE LUBRICATION FIELD!

All this advertising is keyed to send motorists to you as an "A" dealer. The entire plan is designed to get you the lion's share of the real lubrication business in your vicinity.

The story is far too big to be told here. The coupon will bring you complete information AT ONCE. After you hear it you will agree you CANNOT AFFORD NOT TO BE AN "A" DEALER. Write today!

ALEMITE CORPORATION, (Division of Stewart-Warner)
2628 N. Crawford Ave., Chicago, Ill. 2630

Please send complete information on your Profit Story for Alemite "A" dealers.

Name .....

Address .....

Tank Wagon, Service Station Markets for Gasoline and Kerosine

(OIL PRICE HANDBOOK has t.w. and s.s. markets for a whole year, arranged for quick reference)

Tax column includes 1c federal tax, state gasoline tax, and city and county taxes as indicated in footnotes

These Prices in Effect Aug. 22, 1932, as Posted by Principal Marketing Companies

S.O. NEW JERSEY TERRITORY

Standard Gasoline	T.W.	Tax	Total T.W.	S.S.	Kerosine T.W.
Atlantic City, N. J.	12.9	4	16.9	17.9	11.2
Newark, N. J.	12.2	4	16.2	17.2	8.5
Annapolis, Md.	13.5	5	18.5	19.5	10
Baltimore, Md.	12.9	5	17.9	18.9	7
Cumberland, Md.	14.4	5	19.4	20.4	11.7
Washington, D. C.	13.4	3	16.4	17.4	10
Danville, Va.	14.6	6	20.6	21.6	11.9
Norfolk, Va.	13	6	19	20	10.3
Petersburg, Va.	14.1	6	20.1	21.1	11.4
Richmond, Va.	13.4	6	19.4	20.4	10.7
Roanoke, Va.	14.6	6	20.6	21.6	11.9
Charleston, W. Va.	14.3	5	19.3	20.3	11.6
Parkersburg, W. Va.	12.9	5	17.9	18.9	10.2
Wheeling, W. Va.	13.9	5	18.9	19.9	11.2
Charlotte, N. C.	15.2	7	22.2	23.2	12.5
Hickory, N. C.	15.4	7	22.4	23.4	12.7
Mt. Airy, N. C.	15.5	7	22.5	23.5	12.8
Raleigh, N. C.	15	7	22	23	12.3
Salisbury, N. C.	15.3	7	22.3	23.3	12.6
Charleston, S. C.	13	7	20	21	10.3
Columbia, S. C.	14.9	7	21.9	21.9	12.2
Spartanburg, S. C.	15.2	7	22.2	23.2	12.5

Dealer Discount: gasoline. 2c off retail t.w. price, except Washington, D. C. and Baltimore, Md. where discount is 3c.

Kerosine Discount: 1c off t.w. price for 25 gals. or more, under contract, thru territory except New Jersey, effective June 17, 1931.

S. O. NEW YORK

Socony Gasoline

Greater New York City:					
Boroughs of Manhattan, Bronx, Queens & Kings	10.5	4	14.5	14.5	9.5
Borough of Richmond	10.5	4	14.5	14.5	9.5
Albany, N. Y.	13	4	17	18	9
Buffalo, N. Y.	12.5	4	16.5	17.5	9
Rochester, N. Y.	12.5	4	16.5	17.5	9
Syracuse, N. Y.	12.5	4	16.5	17.5	9.5
Boston, Mass.	10.5	4	14.5	15.5	8
Augusta, Me.	14	5	19	20	9.5
Manchester, N. H.	12	5	17	18	8
Burlington, Vt.	14.5	5	19.5	20.5	8.5
New Haven, Conn.	13.5	3	16.5	17.5	8
Providence, R. I.	10.5	3	13.5	14.5	8

Dealer discount: on gasoline 2c off posted t.w. price, except 3c in New York City.

ATLANTIC REFINING

Atlantic White Flash Gasoline

Pittsburgh, Pa.	13	4	17	18	10
Philadelphia, Pa.	12	4	16	17	10
Allentown, Pa.	12.5	4	16.5	17.5	10
Erie, Pa.	11	4	15	16	10
Scranton, Pa.	12.5	4	16.5	17.5	10
Altoona, Pa.	13	4	17	18	10
Dover, Del.	12.5	4	16.5	17.5	10
Wilmington, Del.	12.5	4	16.5	17.5	10
Boston, Mass.	10.5	4	14.5	15.5	8
Springfield, Mass.	12	4	16	17	8
Worcester, Mass.	11.5	4	15.5	16.5	8
Fall River, Mass.	10.5	4	14.5	15.5	8
Providence, R. I.	10.5	3	13.5	14.5	8
Hartford, Conn.	13.5	3	16.5	17.5	8
New Haven, Conn.	13.5	3	16.5	17.5	8
Atlantic City, N. J.	12.9	4	16.9	17.9	11.2
Camden, N. J.	12.3	4	16.3	17.3	10.6
Trenton, N. J.	12.7	4	16.7	17.7	11
Annapolis, Md.	13.5	5	18.5	19.5	10
Baltimore, Md.	12.9	5	17.9	18.9	7
Hagerstown, Md.	9	5	14	14	10.4
Richmond, Va.	13.4	6	19.4	20.4	10.7
Wilmington, N. C.	13.1	7	20.1	21.1	10.4
Brunswick, Ga.	12	7	19	20	*13.5
Jacksonville, Fla.	11	8	19	20	10.5

Dealer discount: on gasoline, "split dealers," 2c off posted t.w. price; to 100% dealers, 2.5c; to authorized dealers (under lease 1c per gal.), 2.5c off posted s.s. price. Commercial accounts, under contract for one year, are sold at a discount off the posted prices, with due consideration to competition.

*Georgia kerosine prices include 1c state tax.

Latest Changes in Tank Wagon Prices

Gasoline

S. O. New York—T.w. and s.s. cut 1c, Buffalo, Rochester, and Syracuse, to 16.5c and 17c respectively, **Aug. 17.**

S. s. only up 1c, Boston and Providence, to 15.5c and 14.5c respectively, **Aug. 17.**

Atlantic Refining—T.w. and s.s. cut 0.5c, Pittsburgh, Altoona and Erie to 17c and 18c, respectively, **Aug. 19.**

T.w. and s.s. cut 2c, Erie, to 15c and 16c respectively Aug. 20.

T.w. and s.s. cut 0.5c, Philadelphia, to 16c and 17c, **Aug. 19.**

T.w. and s.s. cut 1c, Scranton and Allentown, Pa., to 16.5c and 17.5c, **Aug. 19.**

T.w. and s.s. cut 1c, Dover and Wilmington, Del., to 16.5c and 17.5c, **Aug. 19.**

T.w. and s.s. up 1c Fall River, Mass., **Aug. 17,** and Boston **Aug. 18,** both to 14.5c and 15.5c respectively.

T.w. and s.s. cut 1.5c, Springfield, Mass., to 16c and 17c, **July 23.**

T.w. and s.s. cut 2c, Worcester, Mass., to 15.5c and 16.5c, **July 23.**

T.w. and s.s. up 1c, Providence, R. I., to 13.5c and 14.5c, **Aug. 17.**

T.w. and s.s. cut 4c, Hagerstown, Md., both to 14c, **Aug. 11.**

T.w. and s.s. cut 2c, Brunswick, Ga., to 19c and 20c, **July 30.**

S. O. Kentucky—Crown gasoline t.w. and s.s. cut 1c, Birmingham, Ala., both to 20c, **Aug. 17.**

T.w. and s.s. cut 1c, Macon, Ga., both to 21c, **Aug. 17.**

Kyso Green: T.w. and s.s. cut 1c, Birmingham, Ala., both to 17.5c, and 1c Macon, both to 18c, **Aug. 17.**

S. O. Indiana—Red Crown gasoline s.s. only cut 1c, Minneapolis, to 17.4c, **Aug. 18.**

Stanolind Gasoline: S.s. only cut 1c, Milwaukee, to 14.3c, **Aug. 18.**

S. O. Louisiana—Blue Gas: S.s. cut 1c, Little Rock, to 15c, **Aug. 16.**

S.s. cut 1c, Nashville, to 18c, **Aug. 16.**

Kerosine

Atlantic Refining—Cut 1c, thru Pennsylvania and Delaware, to 10c t.w., **Aug. 19.**

S. O. Indiana—Up 4c, thru Indiana, **Aug. 22,** to cover new state tax.

Naphtha

S. O. Indiana—Up 4c thru Indiana **Aug. 22,** to cover new state tax.

S. O. OHIO

	T.W.	Tax	Total T.W.	S.S.	Kerosine T.W.
Sohio X-70 Gasoline					
Ohio statewide	13	5	18	18.5	11.5
Greene, Montgomery, Miami and Darke counties:	11	5	16	16	11.5
Renown Green (Third Grade)					
Ohio statewide	..	5	..	16.5	11.5
Greene, Montgomery, Miami and Darke counties:	...	5	....	14	11.5

Dealer and commercial consumer discount: Sohio X-70 gasoline, 2c off t.w. price; Renown Green, 1.5c off s.s. price. Kerosine, 2.5c off t.w.

S. O. KENTUCKY

Crown Gasoline

Lexington, Ky.	12.5	6	18.5	18.5	10.5
Louisville, Ky.	12	6	18	18	10.5
Paducah, Ky.	13.5	6	19.5	19.5	8
Covington, Ky.	13	6	19	19	10.5
Jackson, Miss.	13	7	20	20	*10
Vicksburg, Miss.	13	7	20	20	*10.5
Birmingham, Ala.	13	*7	20	20	11
Mobile, Ala.	11.5	*8.5	20	20	8
Montgomery, Ala.	12	*8	20	20	13.5
Macon, Ga.	14	7	21	21	*13
Atlanta, Ga.	15	7	22	22	*11
Augusta, Ga.	14.5	7	21.5	21.5	*13.5
Savannah, Ga.	13	7	20	20	*12.5
Jacksonville, Fla.	12	8	20	20	12.5
Miami, Fla.	14	8	22	22	12.5
Tampa, Fla.	12	8	20	20	10
Pensacola, Fla.	13.5	*9	22.5	22.5	12.5

Kyso Green (Third Grade)

Lexington, Ky.	9.5	6	15.5	15.5	10.5
Louisville, Ky.	9.5	6	15.5	15.5	10.5
Paducah, Ky.	10.5	6	16.5	16.5	8
Jackson, Miss.	11	7	18	18	*10
Vicksburg, Miss.	10	7	17	17	*10.5
Birmingham, Ala.	10.5	*7	17.5	17.5	11
Mobile, Ala.	9.5	*8.5	18	18	8
Montgomery, Ala.	13	*8	21	21	13.5
Atlanta, Ga.	11	7	18	18	*11
Augusta, Ga.	12.5	7	19.5	19.5	*13.5
Macon, Ga.	11	7	18	18	*13
Pensacola, Fla.	13	8	21	21	12.5

Dealer Discount: on Crown and Crown Ethyl gasolines, 3c off t.w. price thru territory; Kyso Green 2c.

***Taxes:** in the tax columns are included these city and county taxes at the following points: Birmingham, 1c city; Mobile, 1c city; Montgomery, 1c city and 1c county; Pensacola, 1c city. Georgia kerosine prices include 1c state tax. Montgomery kerosine price includes ½c city tax. Mississippi kerosine prices include 1c state tax.

S. O. INDIANA

Standard Red Crown Gasoline

Chicago, Ill.	13.1	4	17.1	17.1	10
Decatur, Ill.	13.6	4	17.6	17.6	10.1
E. St. Louis, Ill.	12.9	4	16.9	16.9	9.3
Joliet, Ill.	13.6	4	17.6	17.6	10.1
Peoria, Ill.	13.6	4	17.6	17.6	10.1
Quincy, Ill.	13.4	4	17.4	17.4	9.9
Springfield, Ill.	13.6	4	17.6	17.6	10.1
Indianapolis, Ind.	13.4	5	18.4	18.4	‡14.1
Evansville, Ind.	13.2	5	18.2	18.2	‡13.9
South Bend, Ind.	13.7	5	18.7	18.7	‡14.4
Detroit, Mich.	9.6	4	13.6	13.6	10.6
Grand Rapids, Mich.	13.5	4	17.5	17.5	10.3
Saginaw, Mich.	12.6	4	16.6	16.6	10.6
Marquette, Mich.	14.1	4	18.1	18.1	10.9
Green Bay, Wisc.	13.8	5	18.8	18.8	10.5
Madison, Wisc.	13.5	5	18.5	18.5	10.2
Milwaukee, Wisc.	12.3	5	17.3	17.3	10
La Crosse, Wisc.	14.4	5	19.4	19.4	11.1
Minneapolis, Minn.	14.4	4	18.4	17.4	11
Duluth, Minn.	14.7	4	18.7	18.7	11
Mankato, Minn.	14.3	4	18.3	18.3	9.7
Des Moines, Ia.	13.7	4	17.7	17.7	10.4
Davenport, Ia.	13.7	4	17.7	17.7	10.4
Sioux City, Ia.	13.3	4	17.3	17.3	10
Mason City, Ia.	13.7	4	17.7	17.7	10.4
St. Louis, Mo.	12.6	†4	16.6	16.6	9.4

Above prices include these inspection fees on both gasoline and kerosine, per gallon, figured on basis of 50 gallons per barrel:

Alabama, 1/40c on gasoline, 1/2c on kerosine; Arkansas, 1/5c per gal. in a single barrel, 1/20c per gal. in bulk; Florida, 1/8c; Illinois, 3/100c; Indiana, 1/2c per gal. in a single barrel; 3/10c per gal. in lots of 2 to 10 bbls., 1/5c for 10 to 50 bbls., 2/25c for over 50 bbls.; Kansas, 1/50c, (3/50c can be charged to meet inspection department expenses); Louisiana, 1/32c; Minnesota, 2/25c; Nebraska, 3/50c; North Carolina, 1/4c; North Dakota, 1/20c; Oklahoma, 2/25c per gal. in lots of more than 50 bbls., 1/5c in lots less than 50 bbls.; South Carolina, 1/8c; South Dakota, 1/10c; Tennessee, 2/5c; and Wisconsin, 1/25c.

Kerosine inspection fees only: Iowa, 2/25c; Michigan, 4/5c per gal. for first 2 bbls.; 3/5c for next 3; 2/5c for next 5; 3/10c for next 15; and 1/5c per gal. in lots over 25 bbls.

Tank Wagon, Service Station Markets for Gasoline and Kerosine

Tax column includes 1c federal tax, state gasoline tax, and city and county taxes as indicated in footnotes

These Prices in Effect Aug. 22, 1932, as Posted by Principal Marketing Companies

S. O. INDIANA (Cont'd)

	T.W.	Tax	Total T.W.	S.S.	Kerosine T.W.
Kansas City, Mo.	11.1	†4	15.1	15.1	8.7
St. Joseph, Mo.	12.7	†4	16.7	16.7	7.5
Fargo, N. D.	16.1	4	20.1	20.1	13
Grand Forks, N. D.	16.4	4	20.4	19.1	13.3
Minot, N. D.	16.1	4	20.1	20.1	12
Pierre, S. D.	14.2	5	19.2	19.2	11.5
Huron, S. D.	14.5	5	19.5	19.5	11.8
Wichita, Kans.	11.9	4	15.9	15.9	7
Bartlesville, Okla.	10.5	5	15.5	18	9

†Includes city tax of 1c.

Stanolind Gasoline (Third Grade)

Stanolind prices are 1.5c per gal. under Standard Red Crown, except at following points:

Chicago, Ill.	9.6	4	13.6	13.6	10
Decatur, Ill.	12.1	4	16.1	15	10.1
E. St. Louis, Ill.	11.4	4	15.4	12.1	9.3
Joliet, Ill.	10.6	4	14.6	15.6	10.1
Quincy, Ill.	8.5	4	12.5	12.5	9.9
Springfield, Ill.	12.1	4	16.1	14.9	10.1
Kansas City, Mo.	8	†4	12	12	8.7
St. Joseph, Mo.	8.1	†4	12.1	12.1	7.5
St. Louis, Mo.	9.6	†4	13.6	13.6	9.4
Detroit, Mich.	8.6	4	12.6	12.6	10.6
Grand Rapids, Mich.	11.7	4	15.7	15.7	10.3
Saginaw, Mich.	10.6	4	14.6	14.6	10.6
Mankato, Minn.	11.1	4	15.1	14.6	9.7
Minneapolis, Minn.	10.1	4	14.1	13	11
Evansville, Ind.	11.7	5	16.7	16	‡13.9
Indianapolis, Ind.	11.9	5	16.9	15.9	‡14.1
Davenport, Ia.	12.2	4	16.2	13	10.4
Des Moines, Ia.	9	4	13	12.9	10.4
Mason City, Ia.	12.2	4	16.2	13.6	10.4
Sioux City, Ia.	10	4	14	13	10
Green Bay, Wisc.	9.6	5	14.6	14.3	10.5
La Crosse, Wisc.	12.9	5	17.9	17	11.1
Madison, Wisc.	12	5	17	16.4	10.2
Milwaukee, Wisc.	10.3	5	15.3	14.3	10
Huron, S. D.	11.1	5	16.1	17.1	11.8
Fargo, N. D.	11	4	15	16.1	13
Grand Forks, N. D.	14.9	4	18.9	18.1	13.3
Bartlesville, Okla.	10	5	15	16	9

†Includes city tax of 1c. ‡Includes 4 cent state tax.

O.D.A. (Effective May 4, 1931):

Discounts to resellers, except in Chicago, all quantities per month:
Off s.s. under 75,000 gals.: Ethyl: 3c, Red Crown 2.5c, Stanolind 1.5c. Off t.w. over 75,000 gals.: Ethyl 4c, Red Crown, 3.5c, Stanolind 2c. (See also last paragraph below).

Chicago reseller discounts: any quantity, Ethyl 4c, "regular" 3.5c, third grade 2c, by principal marketers. Discounts are off s.s. below 75,000 gals., and off t.w. above 75,000 gals.

Consumer discounts, off t.w., outside Chicago: 500 to 75,000 gals., Ethyl 3c, Red Crown 2.5c, Stanolind 1.5c. Over 75,000 gals., Ethyl 4c, Red Crown 3.5c, Stanolind 2c.

Chicago consumer discounts, off t.w.: over 500 gals., Ethyl 4c, regular 3.5c, third grade 2c.

Effective Nov. 4, 1931, to all buyers from t.w., 25 gals. and over, all gasolines, 1c off t.w. price. No change in total discount to contract customers.

Service Stations discount, 2c off on Ethyl and Red Crown, 1c off on Stanolind to contract buyers of 100 or more gals. in any one calendar month.

S. O. NEBRASKA

Red Crown Gasoline

Omaha, Neb.	11.9	5	16.9	17.9	10.25
McCook, Neb.	14	5	19	19	11.75
Norfolk, Neb.	13.75	5	18.75	19.75	10.75
North Platte, Neb.	14	5	19	19	11.5
Scottsbluff, Neb.	14	5	19	19	10

Dealer discount: on gasoline off normal s.s. prices: Ethyl 3c; Red Crown 2.5c.

S. O. LOUISIANA

Standard Gasoline

	Posted Retail T.W.	Tax	Total Posted Retail T.W.	Posted Retail S.S.	Kerosine T.W.
Little Rock, Ark.	11.5	7	18.5	18.5	9
Alexandria, La.	11.5	*7	18.5	18.5	*10
Baton Rouge, La.	11	6	17	17	*10
New Orleans, La.	11	*7	18	18	*11
Lake Charles, La.	11.5	*7	18.5	18.5	*10
Shreveport, La.	10.5	6	16.5	16.5	*10
Lafayette, La.	11	*7	18	18	*10
Bristol, Tenn.	14	8	22	22	12
Chattanooga, Tenn.	13.5	8	21.5	21.5	11.5
Knoxville, Tenn.	13.5	8	21.5	21.5	11.5
Memphis, Tenn.	10	8	18	18	9
Nashville, Tenn.	12	8	20	20	11

Blue-Gas (Third Grade)

	Tax		Total Posted Retail S.S.	Kerosine T.W.
Little Rock, Ark.	7	....	15	9
Alexandria, La.	*7	....	15	*10
Baton Rouge, La.	6	....	16	*10
New Orleans, La.	*7	....	16	*11
Lafayette, La.	*7	....	15	*10
Lake Charles, La.	*7	....	18	*10
Shreveport, La.	6	....	14	*10
Bristol, Tenn.	8	....	18	12
Chattanooga, Tenn.	8	....	20	11.5
Knoxville, Tenn.	8	....	20	11.5
Memphis, Tenn.	8	....	16	9
Nashville, Tenn.	8	....	18	11

Open dealer and commercial consumer discounts: on Standard gasoline, 2c per gal. off posted retail tank wagon price; 2c on kerosine; no discount on Blue-Gas.

Lease and agency discounts: Esso gasoline, 2.5c; Standard gasoline, 2c; Blue-Gas, 1c, off s.s. price, plus 1c per gal. rental.

*Lake Charles, Alexandria, New Orleans and Lafayette gasoline tax includes 5c state tax. 1c federal tax, and 1c parish tax. Louisiana kerosine prices include 1c state tax; New Orleans includes also 1c parish tax.

MAGNOLIA PETROLEUM

Maximum Mileage Gasoline

	T.W.	Tax	Total T.W.	S.S.	Kerosine T.W.
Muskogee, Okla.	9.5	5	14.5	17	8
Oklahoma City.	9.5	5	14.5	17	8
Tulsa, Okla.	10.5	5	15.5	18	8
Fort Smith, Ark.	12	†5	17	17	9
Little Rock, Ark.	12	7	19	19	11
Texarkana, Ark.	14.5	*5	19.5	19.5	11
Dallas, Tex.	10.5	5	15.5	18	7
El Paso, Tex.	10.5	5	15.5	19	12
Fort Worth, Tex.	11.5	5	16.5	18	9
Houston, Tex.	10.5	5	15.5	18	10
San Antonio, Tex.	10.5	5	15.5	18	9

Blue Gasoline

Muskogee, Okla.	8	5	13	14	8
Oklahoma City.	7	5	12	13	8
Tulsa, Okla.	9	5	14	15	8
Fort Smith, Ark.	7	†5	12	12	9
Little Rock, Ark.	9	7	16	16	11
Texarkana, Ark.	8	5	13	13	11
Dallas, Tex.	8	5	13	14	7
El Paso, Tex.	9	5	14	14	12
Fort Worth, Tex.	6	5	11	12	9
Houston, Tex.	10	5	15	16	10
San Antonio, Tex.	7	5	12	13	9

Dealer discounts: on Maximum Mileage gasoline, 2.5c off t.w. price to dealers, thru Arkansas On Blue gasoline, 1c per gal. off t.w. price to dealers thru territory. Arkansas kerosine prices are subject to 2c discount off t.w. price.

*In Texarkana, 4c Texas tax applies; outside Texarkana, 6c Arkansas tax applies.

†In Fort Smith, 4c Oklahoma tax applies; outside Fort Smith, 6c Arkansas tax applies.

CONTINENTAL OIL

Conoco Gasoline

Denver, Colo.	13	5	18	21	12.5
Pueblo, Colo.	13	5	18	21	12.5
Grand Junc., Colo.	15	5	20	23	14.5
Casper, Wyo.	12	5	17	20	10
Cheyenne, Wyo.	13	5	18	21	11.5
Butte, Mont.	14	6	20	23	17
Helena, Mont.	16	6	22	25	17
Salt Lake City, Utah.	13	5	18	21	16
Boise, Ida.	16.5	6	22.5	25.5	18
Twin Falls, Ida.	16.5	6	22.5	25.5	18
Albuquerque, N. M.	12	6	18	21	14

S. O. CALIFORNIA

Standard Gasoline

San Francisco, Cal.	11	4	15	18	12.5
Los Angeles, Cal.	10.5	4	14.5	17.5	12.5
Fresno, Cal.	11.5	4	15.5	18.5	14
Phoenix, Ariz.	12.5	6	18.5	21.5	†20.5
Reno, Nev.	16	5	21	24	15.5
Portland, Ore.	12	5	17	20	13.5
Seattle, Wash.	12	6	18	21	13.5
Spokane, Wash.	15.5	6	21.5	24.5	18
Tacoma, Wash.	12	6	18	21	13.5

†Includes 5c state tax.

Discounts: On Standard and Standard Ethyl gasolines, to 100% dealers, 1c off t.w. price, beginning May 24 in Oregon and Washington, and June 27 in California, Nevada and Arizona.

CANADA

Prices of Imperial Oil Ltd.
(Per Imperial Gallon, which is 1.2 U. S. Gallons)

Imperial Three Star Gasoline	T.W.	Tax	Total T.W.	S.S.	Kerosine T.W.
Hamilton, Ont.	18	6	24	27	16.5
Toronto, Ont.	18	6	24	27	17.5
Brandon, Man.	23.5	7	30.5	34	20.5
Winnipeg, Man.	20.5	7	27.5	31	17.5
Regina, Sask.	24.5	6	30.5	34.5	21.5
Saskatoon, Sask.	26.5	6	32.5	36.5	23.5
Edmonton, Alta.	25.5	5	30.5	34	22.5
Calgary, Alta.	22	5	27	30.5	19
Vancouver, B. C.	21	7	28	32	24
Montreal, Que.	17	6	23	26.5	17.5
St. John, N. B.	20	7	27	31	22
Halifax, N. S.	20	6	26	30	22

Aviation Gasoline Prices

Following are tank wagon prices of aviation gasoline in principal marketing territories. Tax column includes 1c federal tax, and state tax; also municipal taxes as indicated in footnotes.

S. O. NEW JERSEY

Prices in Effect Aug. 22, 1932

Stanavo Aviation Gasoline	T.W.	Tax	Total T.W.
Newark, N. J.	16	1	17
Baltimore, Md.	16	5	21
Washington, D. C.	16.3	3	19.3

COLONIAL BEACON OIL CO.

Stanavo Aviation Gasoline

New York City	16	3	19
Boston, Mass.	18	4	22

S. O. PENNSYLVANIA

Stanavo Aviation Gasoline

Philadelphia, Pa.	15.5	4	19.5
Pittsburgh, Pa.	16.5	4	20.5
Altoona, Pa.	16.5	4	20.5
Harrisburg, Pa.	15.5	4	19.5

S. O. OHIO

Sohio Aviation Gasoline

Thru Ohio	14	5	19

Discounts: to airports, 1 to 4c, based on quantity.

S. O. INDIANA

Stanavo Aviation Gasoline

Chicago	16.1	4	20.1
Indianapolis, Ind.	16.4	5	21.4
Detroit, Mich.	17	4	21
Milwaukee, Wisc.	16.3	5	21.3
Minneapolis, Minn.	17.4	4	21.4
St. Louis, Mo.	15.5	3	18.5
Kansas City, Mo.	16.1	*4	20.1
Fargo, N. D.	19.1	4	23.1
Huron, S. D.	17.5	5	22.5
Wichita, Kan.	15	4	19

*Includes 1c city tax.

S. O. LOUISIANA

Stanavo Aviation Gasoline

Little Rock, Ark.	17	7	24
New Orleans, La.	16	*7	23
Shreveport, La.	16	6	22
Chattanooga, Tenn.	19	8	27
Memphis, Tenn.	17	8	25

Dealer and commercial consumer discount: 2c off posted retail t.w.

*Includes 1c parish tax.

CONTINENTAL OIL CO.

Denver, Colo.	16	5	21
Cheyenne, Wyo.	16	5	21
Helena, Mont.	19	6	25
Salt Lake City, Utah.	19	5	24
Albuquerque, N. M.	16	6	22
Boise, Ida.	20.5	6	26.5

S. O. CALIFORNIA

Stanavo Aviation Gasoline

Phoenix, Ariz.	15.5	6	21.5
Los Angeles, Cal.	13.5	4	17.5
San Francisco, Cal.	14	4	18
Reno, Nev.	19	5	24
Portland, Ore.	15	5	20
Seattle, Wash.	15	6	21
Spokane, Wash.	18.5	6	24.5

Note: Above prices are in tank trucks or iron barrels. For deliveries direct into airplane fuel tanks, 3c per gal. added beginning May 18 in California, May 24 in Oregon and Washington, and June 27 in Arizona and Nevada.

(Continued on page 76)

Thrifty Practice

▲ ▲ ▲ is to select
BRIGHT STOCKS
because of QUALITY

A Thrifty Practice is to blend oils with-TP-Bright Stocks because they are 100% pure paraffine base and are Wax-Free. They are of uniform quality, assure longer life to the motor, easier starting and will increase your profits through the satisfied customers that mean repeat business.

These Bright Stocks will be blended into oils to your special specifications on any S. A. E. viscosity number.

WRITE, WIRE OR PHONE
FOR QUOTATIONS.
"A QUART, A BARREL—
OR A TANKCAR."

TEXAS PACIFIC COAL & OIL CO.

FORT WORTH, TEXAS

*-TP- EXCLUSIVE PROCESS PROTECTED BY UNITED STATES LETTERS PATENT No. 1803941

Crude Oil Prices (in Effect Aug. 22, 1932)

Crude prices for the whole year in OIL PRICE HANDBOOK published annually
(Prices are per barrel at the well; A.P.I. gravity).

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in Southwest Penna. Pipe Lines.....$1.72
(Effective Aug. 11, 1932)
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)..... 1.67
(Effective Aug. 11, 1932)
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O.).....†1.52
(Effective Aug. 11, 1932)
Corning Oil in Buckeye Pipe Lines (Ohio).... 1.05
(Effective April 26, 1932)

†For Macksburg oil run previous to March 1, 1932, $1.42.

Posted by Other Companies

Tide Water Pipe Co., Ltd.:
Bradford-Alleghany district (Penna. and N. Y.).....$2.02
(Effective April 25, 1932)

*The Pennzoil Co.:
Penna. Grade Oil in National Transit Lines*$1.97
(Effective April 25, 1932)

Ashland Refining Co.:
Somerset Oil in Ashland Lines (Kentucky)..$0.85
(Effective April 26, 1932)

Stoll Oil Refining Co.:
Stoll Pipe Line Oil (Kentucky).....$1.00
(Effective June 10, 1932)

*The Pennzoil Co. posts $1.97 in Cochran, Franklin, Hamilton and Doolittle, Pa. fields; prices in other districts range down to $1.92 per bbl. at wells.

MICHIGAN

(Posted by Pure Oil Co.)

Midland, Midland County (July 13, 1932)....$0.85

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.
Effective April 11, 1932

Wooster	$1.25	Princeton	$1.10
Lima	1.15	Illinois	1.10
Indiana	0.75	West Kentucky	1.05

CANADIAN CRUDE

Posted by Imperial Oil Refineries, Ltd.
Ontario
Effective Nov. 3, 1931

Petrolia..... $1.90
Oil Springs..... $1.97

Turner Valley, Alta.:
(Effective April 21, 1932)

40-44.9	$1.56	Naphtha:	
45-49.9	2.18	†Clear	$3.32
50 and above	2.80	†Discolored	3.08

†Clear naphtha: 22 color, 10 lbs. vapor pressure, 90% recovery, end point, 410° A.P.I. Discolored naphtha: 90% recovery and 10 lbs. vapor pressure.

OKLAHOMA, KANSAS and NORTH TEXAS

Prices of Stanolind Crude Oil Purchasing Co.
(In Oklahoma, Kansas, North and North Central Texas)

(Effective April 11, 1932)

Below 29	$0.76	35-35.9	$0.90
29-29.9	0.78	36-36.9	0.92
30-30.9	0.80	37-37.9	0.94
31-31.9	0.82	38-38.9	0.96
32-32.9	0.84	39-39.9	0.98
33-33.9	0.86	40 and above	1.00
34-34.9	0.88		

On April 1, 1932, above prices were first posted by Continental Oil Co., followed the same day by Barnsdall, Bartex Pipe Line Co. (Phillips Pet.), Magnolia, Sinclair, Sun Oil, and The Texas Co. April 11, Humble Oil & Refining Co., Gulf Refining Co. and Carter Oil Co. met Carter's schedule having these five lower grades: below 25, $0.68; 25-25.9, $0.70; 26-26.9, $0.72; 27-27.9, $0.74; 28-28.9, $0.76.

Humble's prices are in Ranger, North Texas, Mexia, Powell, Boggy Creek, Richland, Wortham, Currie and Moran, Tex.

East Texas

Magnolia, Sinclair and Texas Co. post $0.98 effective April 1, 1932.

Magnolia Petroleum Co.

(In Oklahoma, North, North Central and Central Texas)

(Including in North and North Central Texas: Burkburnett, Archer, Stephens, Henrietta, Electra, Comanche and Olden; in Central Texas: Mexia, Wortham, Corsicana Light and Panola county).

Effective April 1, 1932

Below 28	$0.67	28-28.9	$0.76

Rest of schedule same as Stanolind, which see above.

Lytton Springs, Tex.....$0.94
Corsicana heavy..... 0.64

PANHANDLE TEXAS

Humble Oil & Refining Co.
Effective April 11, 1932

Hutchinson-Carson Counties		Gray County	
Below 35	$ .66		$0.76
35-35.9	.68		.78
36-36.9	.70		.80
37-37.9	.72		.82
38-38.9	.74		.84
39-39.9	.76		.86
40 and above	.78		.88

April 1, 1932 Magnolia and The Texas Co. first posted above prices.

WEST TEXAS and NEW MEXICO

Humble Oil & Refining Co.
Effective April 11, 1932

Pecos, Winkler, Crane, Upton, Crockett, Ector, Howard and Glasscock Counties, Tex., and Lea county, N. Mex.....$0.65

April 1, 1932 Magnolia and The Texas Co. first posted above prices; Magnolia's prices applying in Winkler, Crane, Upton, Howard, Glasscock and Mitchell; Texas Co. posts in Crane, Upton, Winkler and Lea.

SOUTH and SOUTHWEST TEXAS

(Posted by Humble Oil & Refining Co.)
Effective April 11, 1932

Mirando	$0.80	Salt Flat	$0.75
Darst Creek	0.75	Pettus, Bee Cty.	1.00

(Posted by Magnolia Petroleum Co.)
Effective April 1, 1932

Mirando	$0.90	Darst Creek	$0.75
Luling	0.64		

NORTH LOUISIANA—ARKANSAS FIELDS

‡Prices of Standard Oil Co. of Louisiana

Caddo, Homer, Haynesville, Bull Bayou, El Dorado Crichton, De Soto, Sabine, Sarepta and Carterville
Effective April 11, 1932

Below 25	$0.68	33-33.9	$0.86
25-25.9	.70	34-34.9	.88
26-26.9	.72	35-35.9	.90
27-27.9	.74	36-36.9	.92
28-28.9	.76	37-37.9	.94
29-29.9	.78	38-38.9	.96
30-30.9	.80	39-39.9	.98
31-31.9	.82	40 and above	1.00
32-32.9	.84		

Smackover.....$0.65
*Urania, La..... 0.60
†Stephens, Ark.:
Below 29.....$0.61
29 and above..... 0.64

*Urania posted by Louisiana Oil Refining Corp
†Stephens posted by Atlantic Oil Producing Co. and Louisiana Oil Refg. Corp.

‡April 1, 1932, The Texas Co. first advanced North Louisiana crude to prices shown above.

April 6, Magnolia advanced Pine Island, Haynesville, Bull Bayou, Cotton Valley, La., El Dorado light, and Rainbow, Ark. to above prices.

*GULF COASTAL

Posted by Humble Oil & Refining Co.
Effective April 11, 1932

Below 25	$0.80	33-33.9	$0.89
25-25.9	.81	34-34.9	.90
26-26.9	.82	35-35.9	.91
27-27.9	.83	36-36.9	.92
28-28.9	.84	37-37.9	.94
29-29.9	.85	38-38.9	.96
30-30.9	.86	39-39.9	.98
31-31.9	.87	40 and above	1.00
32-32.9	.88		

Refugio heavy.....$0.88

*Includes these fields: Barbers Hill, Goose Creek, Hull, Humble, Liberty, Moss Bluff, Mykawa, Orange, Pierce Junction, Rabbs Ridge, Raccoon Bend, Refugio light, Sour Lake, Spindletop, Sugarland and West Columbia.

April 1, 1932 The Texas Co. first posted above prices.

Tennessee Promises Aid Against Bootlegging

NASHVILLE, Tenn.—Full protection for Tennessee petroleum marketers against bootlegging of gasoline from Kentucky was promised the Tennessee Oil Men's Association here Aug. 10 by George Dempster, commissioner of finance and taxation of Tennessee. Bootlegging has been one of the principal annoyances of Tennessee marketers in territory within trucking distance of small refining centers in southern Kentucky.

R. B. Kerr, Shell Petroleum Corp., St. Louis, presented a paper by Carl Becker, also of Shell, on "The Oil Industry and Taxes." Other addresses were: "The Effect of the Federal Gasoline and Lubricating Oil Tax" by W. A. Hensley, Independent Oil Co., Cookeville; "What Benefits Have Been Derived from the Code" by M. A. Dyer, The Texas Co., New Orleans; "Legal Sidelights of the Oil Industry" by Cecil Sims, Nashville attorney; "The Transportation of Gasoline" by W. D. Hudson, Apex Oil Corp., Clarksville, and "Legislative Needs for the Oil Industry" by A. L. Todd, Consumers Supply Co., Murfreesboro.

Mr. Dyer was toastmaster at the annual banquet at which R. M. Pritchard, Home Oil Co., Ripley, was the speaker.

Mr. Hudson was re-elected president and L. W. Collins executive secretary for their third consecutive terms.

S. Y. Campbell, Campbell Oil Co., Chattanooga, and Mr. Hensley were re-elected vice-presidents.

Directors elected for three-year terms are: F. P. Kendall, Pennsylvania Service Stations, Memphis; John M. Lassing, Peerless Oil & Gas Co., Nashville, and Mr. Prichard.

Appoint Selling Agency

CHICAGO, Aug. 20.—Petroleum Exchange Corp., 624 So. Michigan Ave., Chicago, has been appointed selling agency for the Octane Oil Refining Co. of Baird, Tex., which recently has built a new refinery at that point.

. . . . A PROMISE FULFILLED . . . .

Anderson-Prichard and COL-TEX promised the splendid jobbers and distributors who entrusted their business to them that they would furnish modern up-to-date petroleum products, selling assistance and liberal credit consideration as an aid in pulling through this severe business readjustment.

This promise has been kept. Anderson-Prichard and COL-TEX products are setting the pace for competition and their jobbers are experiencing a splendid business, many of them having increases over last year. Sales assistance and liberal credit aid has been extended, tiding them over during times when their banks and other financial sources would in no way help them. This background of assurance has been valuable in keeping up the morale and the determination of these jobbers to carry on, despite all obstacles.

Anderson-Prichard and COL-TEX offer a strong dependable source of supply for the independent jobber and distributor who is thinking ahead and trying to safeguard his business by providing modern quality products and business security. It's yours for the asking.

Our representative will be glad to call. Write or wire for particulars on our protective contract.

IMPORTANT: We manufacture a complete line of Industrial Naphthas, including V. M. & P.'s, cleaning solvents and lacquer diluents. Also, Road Oils and Asphalts.

BRANCH OFFICES

Springfield, Illinois
809 Myers Building
John M. Mayhall

Omaha, Nebraska
426 Barker Building
F. J. Ellsworth

COL-TEX REFINING COMPANY
ANDERSON-PRICHARD OIL CORPORATION

PRODUCERS AP REFINERS

OKLAHOMA CITY, OKLA.

Crude Oil Prices (in Effect Aug. 22, 1932)

(Prices are per barrel at the well; A. P. I. Gravity)

(Crude Oil Prices for the whole year in OIL PRICE HANDBOOK published annually)

ROCKY MOUNTAIN FIELDS

(Posted by Midwest Refining Co.)

Effective April 11, 1932

Salt Creek, Wyo.:

Below 29°	$0.76	32-32.9	$0.84
29-29.9	0.78	33-33.9	0.86
30-30.6	0.80	34-34.9	0.88
31-31.9	0.82	35-35.9	0.90
36-36.9	$0.92	39-39.9	$0.98
37-37.9	0.94	40 and above	1.00
38-38.9	0.96		

Salt Creek prices met by The Texas Co. April 11.

Effective April 11, 1932

Cat Creek, Mont.	$1.20
Hogback, N. Mex.	0.80
Hobbs, N. Mex.	0.65

(Posted by Ohio Oil Co.)

Effective June 1, 1932

Elk Basin, Wyo.	$1.10
Grass Creek Light	1.10
Rock Creek	0.90

Effective April 11, 1932

Big Muddy	$0.98
Lance Creek	1.15
Sunburst, Mont.	1.05

CALIFORNIA CRUDE

Standard Oil Co. of California

Effective June 26, 1932

Gravity	Signal Hill	Seal Beach Alamitos Heights Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canon	Elwood Terrace	Torrance Richfield	Whittier La Habra	Montebello	Athens Rosecrans Dominguez	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway Sunset Elk Hills Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills	Ventura Avenue (Associated Oil Co.)	Santa Paula (Union Oil Co.)	Orcutt (Union Oil Co.)
14-19.9	$0.65	$0.65	$0.65	$0.65	$0.65	....	$0.65	$0.65	$0.65	....	$0.65	....	$0.55	$0.55	$0.55	$0.55	$0.55	....	$0.72	$0.65	$0.55
20-20.9	.69	.69	.71	.69	.69	....	.69	.68	.65	....	.65	....	....	.59	.59	.59	.57	....	.77	.69	.59
21-21.9	.74	.74	.77	.74	.74	....	.74	.72	.67	....	.66	....	....	.63	.63	.62	.60	....	.82	.72	.63
22-22.9	.79	.79	.82	.78	.79	....	.79	.77	.70	....	.70	....	....	.69	.69	.65	.63	....	.86	.75	.69
23-23.9	.84	.84	.87	.82	.84	....	.84	.83	.73	....	.76	....	....	.75	.75	.68	.66	....	.90	.78	.75
24-24.9	.89	.89	.92	.86	.89	....	.89	.89	.76	$0.89	.81	$0.73	....	.81	.81	.72	.69	....	.93	.81	.81
25-25.9	.93	.93	....	.91	.93	F.o.b. Ship	.93	....	.80	.93	.86	.79	....	.87	.87	.75	.72	....	.96	.84	.82
26-26.9	.97	.97	....	.96	.97	....	....	....	....	.97	.90	.84	....	.92	.91	....	....	....	.99	.87	.97
27-27.9	1.00	....	....	Subject to field gathering charge of 5c per barrel.	1.00	....	....	....	....	1.00	.94	.89	....	.97	.94	....	....	....	1.02	.90	....
28-28.9	1.03	....	....		1.03	....	....	....	....	1.03	.98	.94	....	1.02	.99	....	....	....	....	.93	....
29-29.9	1.06	....	....		....	....	....	....	....	1.06	1.02	.98	....	1.07	1.02	....	....	....	....	.96	....
30-30.9	1.09	....	....		....	....	....	....	....	1.09	1.05	1.02	....	1.12	1.05	....	....	....	....	.99	....
31-31.9	....	....	....		....	....	....	....	....	1.12	....	1.06	....	....	....	....	....	....	....	....	....
32-32.9	....	....	....		....	....	....	....	....	1.15	....	1.10	....	....	....	....	....	....	....	....	....
33-33.9	....	....	....		....	$1.04	....	....	....	....	....	1.14	....	....	....	....	....	$0.91	....	....	....
34-34.9	....	....	....		....	1.10	....	....	....	....	....	1.18	....	....	....	....	....	.93	....	....	....
35-35.9	....	....	....		....	1.16	....	....	....	....	....	1.22	....	....	....	....	....	.95	....	....	....
36-36.9	....	....	....		....	1.22	....	....	....	....	....	....	....	....	....	....	....	.97	....	....	....
37-37.9	....	....	....		....	1.28	....	....	....	....	....	....	....	....	....	....	....	.99	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.01	....	....	....
39 and above	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.03	....	....	....

REFINERS' and COMPOUNDERS' SUPPLIES

Following are average market prices for materials used by refiners and compounders effective on the date shown.

Refiners' Supplies

	Aug. 22	Aug. 15
Soda Ash Light 58% bags, cwt.	$1.15-1.38	$1.15-1.38
Silicate of Soda 60 deg. drums, cwt.	$1.75-1.90	$1.75-1.90
Silicate of Soda 40 deg. tank cars, cwt.	$0.70	$0.70
Silicate of Soda 40 deg. drums, cwt.	$1.00	$1.00
Sal Soda wks.	$0.90-1.00	$0.90-1.00
Caustic Soda 76% solid, cwt.	$2.50	$2.50
Sulfuric Acid 60 deg. tank cars, f. o. b. shipping point per ton	$11.00-12.50	$11.00-12.50
Sulfur, flowers of, cwt.	$3.10-4.05	$3.10-4.05
Liquid Chlorine, tank cars, wks., lb.	1.75	1.75

Compounder's Supplies

	Aug. 22	Aug. 15
Vegetable Oils		
Linseed carloads, spot, lb.	5.30	5.30
Tanks, spot	4.70	4.70
Soya Bean, Tank, coast, lb.	3.75-4.00	3.75-4.00
Oleic Acid		
Distilled, tanks, lb.	5.75	5.75
Distilled, bbls., lb.	7.25-7.375	7.25-7.375
Saponified, tanks, lb.	6.00	6.00
Saponified, bbls., lb.	6.75-7.00	6.75-7.00
Lard Oils		
Prime Winter Strained, lb.	8.75	8.75
Extra Winter Strained, lb.	6.75	6.75
Extra, lb.	6.50	6.50
Extra No. 1, lb.	6.00	6.00
No. 1, lb.	5.75	5.75
No. 2, lb.	5.50	5.50
Tallow oil, lb.	5.75	5.75
Neatsfood Oil		
Pure, bbls., lb.	7.75-8.00	7.75-8.00
Extra, bbls., lb.	6.50	6.50
No. 1 bbls., lb.	6.25	6.25
Cold Pressed, lb.	11.25	11.25
Fish Oils		
Menhaden Oil		
Light Pressed, gal.	30-31	30-31
Light Pressed, tank cars, N. Y., gal.	25-26	25-26
Yellow bleached, gal.	28-29	28-29
Whale, extra winter bleached, gal.	57-58	57-58
Naval Stores		
Steam distilled turpentine, N. Y., gal.	43	47
Steam, distilled turpentine, Savannah, gal.	41	41
Gum turpentine, N. Y., gal.	43	50
Gum turpentine, f.o.b. cars Savannah, gal.	38	44
Wood Rosin, N. Y., bbl.	$4.78	$4.78
Wood Rosin F, Savn'h, bbl.	$4.58	$4.58
Gum Rosin B, N. Y., bbl.	$3.25	$3.25
Gum Rosin B, f. o. b. cars Savannah, bbl.	$2.60	$2.60
Rosin oil, pure, gal.	47-49	47-49
Rosin, oil, compounded, gal.	41-43	41-43
Pine Tar		
Kiln burnt	$9.00-10.00	$9.00-10.00
Retort, bbl.	$10.00-11.00	$10.00-11.00
Alcohol		
Denatured Formula 5, in tanks, per gal.	39.6	39.6

OIL STOCKS AND FINANCES

Dissension Arises Over Proposed Sale of Rio Grande Assets

LOS ANGELES, Aug. 19

COMPLICATIONS were introduced into the deal whereby Consolidated Oil Corp. was to acquire Rio Grande Oil Co. through an exchange of stock when a committee, understood to represent a considerable block of Rio Grande stock, declared the Consolidated offer to be unfair, unreasonable, and totally inadequate.

Consolidated's proposal, which was approved by the Rio Grande board of directors three weeks ago, provides for the purchase of all property assets, business and goodwill of Rio Grande in consideration of 494,320.2 shares of Consolidated common stock. This is equivalent to 0.4 share of Consolidated stock for each share of Rio Grande.

This offer was submitted to the Rio Grande stockholders late in July with a request for proxies authorizing acceptance of the deal that is to be voted on at a stockholders' meeting in El Paso, Sept. 14.

The committee opposing the Consolidated deal on its present terms set forth its claims in a letter mailed to Rio Grande stockholders this week and asked that proxies to fight the proposition be in their hands before the September meeting.

The committee has indicated a determination to carry the fight through to a finish and, if necessary, will go into the courts to obtain an independent appraisal of the Rio Grande properties. So far, the management has not answered the committee's request for permission to examine the corporation's books.

The committee charges the elimination of a write-up of about $30,000,000 in the value of Rio Grande's interest in the Elwood pool, a large part of which it controls jointly with the Barnsdall Corp. This write-down, which was effective on the consolidated balance sheet of June 30, last, reduces the book value of Rio Grande stock to $10.03 per share, compared with more than $34 a share if the write-up were not eliminated.

In its letter to stockholders, the opposing committee pointed out that Rio Grande security holders were asked by the management to exchange approximately $85 in assets, as shown by the books of the company (without eliminating the write-up of the Elwood field), for each share of the common stock of Consolidated Oil Corp. Furthermore, even eliminating the write-up of Elwood, the ratio is still about $25 of assets per share of Consolidated stock. The letter continues in part:

"We are not satisfied in view of the excellent showing made by the company during the past six months, that it is in the precarious financial condition which would justify such a transaction.

"We believe that in recommending the acceptance of this offer the present officers and directors of your company are not adequately protecting the interests of shareholders and that immediate steps should be taken to safeguard our investment.

"Rio Grande's stockholders were offered and requested by their directors to accept in full payment for their present holdings 494,329.2 shares of Consolidated Oil Corp. common stock, which pays no dividends and which now has a present market value of about $4,000,000. From this amount should be deducted $1,500,000, which is the excess of the value of current assets over the current liabilities of Rio Grande.

"After such deduction, it is apparent that the net cost of Consolidated is $2,500,000 for all leases, wells, equipment, pipelines, refineries, tank cars, and other properties of Rio Grande Oil Co. This amounts to approximately $3.20 a share for Rio Grande stock to be paid in Consolidated common stock."

The committee outlined the company's producing properties in California, Texas and New Mexico. Among these properties was the heavy oil discovery at Gato Ridge, Santa Barbara county, Calif., and the deep zone light oil discovery in the Elwood pool. Both discovery wells have been shut in until such time as conditions within the industry warrant development.

In addition to these holdings, the company jointly with the Barnsdall Corp., entered into a 10-year contract to furnish a minimum of 3,178,000,000 cubic feet of dry gas per year from the Elwood pool. The committee was unable to determine whether or not this contract was considered in determining the company's assets.

Another item pointed out by the committee was that for the last four years more than $13,194,855 has been expended by Rio Grande for new construction in the way of refineries, pipelines, harbor sites, tank cars, gasoline tanks, etc., all of which have increased the company's capital assets.

In addition to these fixed properties, the company has others that include storage tanks with a capacity of 2,000,000 barrels, a 13-acre site at Long Beach harbor, 57 miles of pipelines, 97 tank cars, and a modern deep water loading pier in the Elwood field.

Rio Grande has funded indebtedness of only $200,000 and total liabilities of $2,636,732.98. It has no preferred stock.

Members of the committee are: Nels Gross, chairman, president, District Bond Co.; W. E. Keller, Los Angeles capitalist and president, Globe Fico Co., El Paso, Tex.; Alan E. Morphy, vice-president, Spring Street Realty Co., Los Angeles; L. L. Rogers, vice-president, Consolidated Rock Products Co., and Robert E. Moody, Pasadena investment banker.

Consolidated Offers Stock To Employees at $6

NEW YORK, Aug. 19.—Directors of Consolidated Oil Corp. have fixed $6 a share as the price at which employes of the corporation and its subsidiaries may subscribe for the company's common stock during the year beginning Sept. 1.

Under the plan all eligible employes may susbscribe for as many full shares of the corporation's common stock as 10 per cent of their annual earnings will pay for in full at the rate of $6 a share. Thus, an employe earning $2400 a year may subscribe to 40 shares of stock, payments to be made through deductions from pay each month at the rate of 50 cents a share, commencing Sept. 30.

Employes, to be eligible, must have been on Sept. 1 in continuous employment of the corporation or a subsidiary for not less than one year. Former employes of the Prairie Oil & Gas Co., Prairie Pipe Line Co. and Pure Pipe Line Co. are also eligible, provided they have been in the employ of these companies or their successor for not less than one year.

It is estimated this offer will be available to approximately 19,000 employes of the corporation and its subsidiaries. Slightly more than 94,000 shares were subscribed to under last year's offering to employes of the Sinclair Consolidated Oil Corp.

Cities Service will develop special products to meet your special lubrication needs

IF YOU HAVE a lubrication problem that's bothering you—if you feel your need requires a special lubricant (probably not on the market) and don't know where to get it—call on Cities Service. Help will be given gladly for Cities Service has—

1. A corps of expert engineers to analyze your problems.
2. Complete, modern laboratories to develop the lubricant you require.
3. The refining facilities and wide choice of crudes to produce the finished product.

Please do not hesitate to come to us with your problems. We will welcome the opportunity to be of service. Write the nearest subsidiary listed below.

CITIES SERVICE OILS

ONCE - ALWAYS

Cities Service Petroleum Products are available through the following subsidiaries and refineries:

Name	Headquarters
CITIES SERVICE OIL COMPANY (Delaware)	Tulsa, Okla.
CITIES SERVICE OIL COMPANY (Michigan)	Adrian, Michigan
CITIES SERVICE OIL COMPANY (Ohio)	Cleveland, Ohio
CITIES SERVICE OIL COMPANY, LTD.	Toronto, Ont., Canada
CITIES SERVICE REFINING COMPANY	Boston, Mass.
CITIES SERVICE EXPORT OIL CO.	New York, N. Y.
CREW LEVICK COMPANY	Philadelphia, Pa.
EMPIRE OIL AND REFINING COMPANY	Tulsa, Okla.
INTER-STATE OIL COMPANY	La Crosse, Wis.
LINDSAY-McMILLAN COMPANY	Milwaukee, Wis.
LOUISIANA OIL REFINING CORP. (LORECO petroleum products)	Shreveport, La.
C. H. LOCKWOOD OIL COMPANY	Kenosha, Wis.
A. R. NEWCOMBE OIL COMPANY	Kingston, N. Y.
WINONA OIL COMPANY	Winona, Minn.
AUTO GAS AND SUPPLY COMPANY	Winona, Minn.

Refineries

CITIES SERVICE REFINING COMPANY	East Braintree, Mass.
CREW LEVICK COMPANY	Petty Island, N. J.—Titusville, Pa.
EMPIRE OIL AND REFINING COMPANY	Ponca City, Okla.—Okmulgee, Okla. Gainesville, Texas—East Chicago, Ind.
LOUISIANA OIL REFINING CORP. (LORECO petroleum products)	Bossier City, La. Gas Center, La.

Louisiana Oil Refining Corporation refines and markets Cities Service petroleum products under the trade name "Loreco" in the states of Texas, Louisiana, Arkansas, Mississippi, Tennessee and Alabama. It owns and operates two modern refineries at Shreveport, La., with a combined capacity of 18,000 barrels daily. High grade crude is obtained principally from company wells in the East Texas fields and from an affiliated company, the Arkansas Fuel Oil Company, which drilled the discovery well in this area where it owns substantial production.

Cities Service Oils and Gasolene

Transactions in Oil Shares on New York Stock Exchange

1931 High	1931 Low	1932 High	1932 Low	Listed Shares	Par Value	Company	Div. Rate Period	Last Div. Paid	Transactions Week Ended Aug. 20 Sales Shares	High	Low	Last	Week's Change
23	11¼	20½	12	922,075	N.P.	Amerada Corp.	50cQ	July 30, 32	900	19½	18¾	18¾	— ⅜
12⅜	1¼	4	¼	209,180	N.P.	American Republics Corp.	....	.....	.....	....	....	....	....
31	8¾	16½	6¾	2,240,000	$25	Associated Oil Co.	25c	July 12, 32	.....	....	....	....	....
23⅜	8⅝	19¾	8⅝	2,696,652	25	Atlantic Refining Co.	25cQ	June 15, 32	38,300	18⅞	17	17½	0
14⅜	4	6¾	3⅜	2,257,740	5	Barnsdall Corp.	....	May 11, 31	20,000	6⅜	5¾	6	+ ⅛
25	8	..	..	2,060,966	25	California Petroleum Corp.	....	Jan. 1, 29	.....	....	....	....	....
10½	7½	12	6¼	1,444,970	N.P.	Colonial Beacon Oil Co.	....	.....	300	*12	10½	12	+ 1
15⅞	4½	9	4	14,218,835	N.P.	Consolidated Oil Corp.	....	.....	41,600	8¼	7¾	8	0
103	64	100	79	141,294	$100	do pfd.	$2	Aug. 15, 32	500	*100	98¾	100	+ 2
12	5	7⅜	3⅝	4,722,301	N.P.	Continental Oil Co.	....	.....	37,100	8	6¾	7	0
47	9⅝	15½	4¼	413,333	N.P.	General Asphalt Co.	25cQ	June 15, 32	3,700	11⅝	10¼	10½	— ½
68⅛	15¼	24⅛	8¼	96,116	$100	Houston Oil Co.	....	.....	14,000	21¾	18	19	+ ⅛
14⅛	3	5⅛	1⅝	677,019	25	do new	....	.....	9,100	4⅜	3¾	3⅞	+ ⅛
4⅝	1⅜	1⅝	1	556,546	10	Indian Refining Co.	....	Dec. 15, 20	.....	....	....	....	....
4½	1	2	½	1,309,036	N.P.	Louisiana Oil Ref'g. Corp.	....	.....	500	1¾	1½	1½	+ ¼
55	20	18	9½	40,000	$100	do pfd.	$1.62½Q	May 16, 32	.....	....	....	....	....
3¾	½	1½	⅜	330,000	N.P.	Maracaibo Oil Exploration Co.	....	.....	100	1⅛	1⅛	1⅛	0
171	50½	60	50	459,428	$100	Mexican Petroleum Co.	....	Apr. 20, 31	20	55	55	55	+ 5
100	100	105	100	120,000	100	do pfd.	$2Q	July 20, 32	.....	....	....	....	....
16¾	5	7⅞	4	1,857,912	N.P.	Mid-Continent Petroleum Corp.	....	Feb. 16, 31	10,800	7⅜	6½	6⅞	— ⅛
19½	5⅛	11	5	6,548,052	N.P.	Ohio Oil Co.	20cQ	June 15, 32	16,800	10⅝	9½	9½	— ⅛
35⅛	20	34	6	1,000,000	$5	Pan American Pet. & Transp. Co.	25cQ	July 20, 32	.....	....	....	....	....
36½	18	34⅞	7⅜	2,474,131	5	do B non-voting	25cQ	July 20, 32	3,600	12½	9½	11½	+ 2⅛
4¼	⅛	1¼	½	199,370	N.P.	Panhandle Prod. & Ref'g. Co.	....	.....	400	1⅛	1	1	— ⅛
20	5	10	3½	25,666	$100	do pfd.	....	July 2, 23	.....	....	....	....	....
10⅛	2⅜	7	3	2,396,084	N.P.	Petroleum Corp. of America	....	June 1, 31	17,300	6¾	6	6	— ⅜
16⅝	4	7⅞	2	4,421,910	N.P.	Phillips Petroleum Co.	....	Jan. 2, 31	14,600	7½	6⅝	6⅞	+ ⅛
1½	¼	½	¼	1,184,917	$25	Pierce Oil Corp.	....	.....	3,400	½	⅜	⅜	0
23⅛	3½	9	3½	150,000	100	do pfd.	....	Feb. 1, 22	300	8⅜	7½	7⅞	+ ⅝
3⅝	½	1¾	½	2,500,000	N.P.	Pierce Petroleum Corp.	....	Feb. 16, 31	3,200	1⅜	1	1	— ⅛
20½	4½	8⅞	3½	2,441,432	$25	Prairie Oil & Gas Co.	....	Mar. 31, 31	.....	....	....	....	....
26½	5⅛	12⅛	5¾	4,050,000	25	Prairie Pipe Line Co.	....	July 1, 31	700	11⅞	11	11⅞	+ ⅞
6	1	1⅝	⅜	749,017	50	Producers & Refiners Corp.	....	Sept. 15, 23	700	¾	⅝	⅝	— ⅛
16	3	9¼	1	56,907	50	do pfd.	....	May 4, 25	100	8	8	8	0
11⅜	3¼	6¼	2⅛	3,038,370	25	Pure Oil Co.	....	Sept. 1, 30	6,700	5⅞	5⅛	5¼	— ¼
101⅞	53½	78	50	130,000	100	do 8% pfd.	$2Q	July 1, 32	20	*78	78	78	+ 2½
6⅝	⅜	1⅜	¼	2,126,250	N.P.	Richfield Oil Co. (California)	....	Sept. 1, 30	4,200	¾	¾	¾	+ ⅛
10¼	1¼	3½	1¼	1,235,815	N.P.	Rio Grande Oil Co.	....	July 25, 30	3,200	3⅛	3	3	0
42⅝	13	23	12¼	558,343	$13.40	Royal Dutch Co. (N. Y. shares)	80½c	Aug. 5, 32	7,800	21⅜	20	20⅜	+ ½
20¾	5½	15¼	6¾	1,244,383	N.P.	Seaboard Oil Co. of Del.	10cQ	June 15, 32	55,000	15⅝	14	14¼	+ ⅛
34	5	15¾	8	62,825	£2	Shell Transport & Trading Co.	53c	July 22, 32	190	14	12	14	0
10¼	2½	7⅛	2½	13,070,625	N.P.	Shell Union Oil Corp.	....	June 30, 30	27,300	6⅞	6⅛	6½	+ ⅛
78	15	48	18	400,000	$100	do pfd.	....	July 1, 31	1,700	48	45	46¾	+ 1¾
11	3½	7	3¼	869,271	10	Simms Petroleum Co.	....	Sept. 15, 30	2,800	6⅞	6⅜	6⅜	— ⅛
12⅜	2	5	2½	1,000,000	25	Skelly Oil Co.	....	Dec. 15, 30	1,100	4½	4⅜	4½	0
62	10	29¾	12	120,000	100	do pfd.	....	May 1, 31	1,100	*29¾	28¾	29¾	+ 2¼
21	8⅜	11⅞	5¼	31,764,443	25	Socony Vacuum Corp.	20cQ	June 15, 32	32,900	11½	10¼	10¼	— ⅛
106	87½	92½	81½	764,935	100	S. O. Export Corp. pfd.	$2.50S.A.	June 30, 32	1,400	*92½	90½	92½	+ 2
51¾	23¼	28⅞	15⅝	13,102,900	N.P.	S. O. California	50cQ	June 15, 32	31,160	28¼	25⅞	26⅞	+ 1¾
19	7¾	16½	7	320,000	$25	S. O. Kansas	....	Mar. 16, 31	6,400	*16½	12	16⅜	+ 4⅜
52½	26	36¾	19⅞	25,735,466	25	S. O. New Jersey	††25cQ	June 15, 32	71,160	35⅜	32½	33⅝	+ 1½
45⅛	26¾	33¼	24¾	1,544,365	N.P.	Sun Oil Co.	25cQ	June 15, 32	500	*33¼	33	33	+ 1¼
104½	75	87	68	100,000	$100	do pfd.	$1.50Q	June 1, 32	180	87	87	87	+ 4½
1¾	¼	3	¼	776,979	N.P.	Superior Oil Corp.	....	.....	6,000	1¼	⅞	1	— ⅛
35⅞	9⅞	17⅜	9¾	9,851,236	$25	The Texas Corp.	25cQ	July 1, 32	30,900	17	14⅞	15¾	+ ⅜
6½	1⅞	4	1½	930,454	10	Texas Pacific Coal & Oil Co.	....	Dec. 31, 29	2,000	3⅜	2⅞	2⅞	— ⅛
9	2¼	5¼	2	5,998,086	N.P.	Tide Water Associated Oil Co.	....	Feb. 16, 31	37,100	5⅛	4⅛	4¾	+ ½
68	20¾	50	20	695,494	$100	do pfd.	$1.50Q	July 1, 32	1,100	49½	47½	49	+ 2
18	9⅞	9	5	2,191,954	N.P.	Tide Water Oil Co.	25cQ	June 30, 32	.....	....	....	....	....
83	30	58½	30	199,446	$100	do pfd.	$1.25Q	Aug. 15, 32	.....	....	....	....	....
26⅝	11	13⅞	8	2,225,302	25	Union Oil Co. California	25cQ	Aug. 10, 32	5,400	13⅛	12¼	12⅜	+ ⅛
25⅛	16	19¼	11⅛	1,254,048	N.P.	Union Tank Car Co.	35cQ	June 1, 32	300	14½	13	13	— ⅝
7⅛	⅛	1⅜	½	769,531	N.P.	Warner Quinlan Co.	....	July 3, 30	1,100	1	1	1	— ¼
9⅜	2¼	8¼	2¼	428,967	N.P.	H. F. Wilcox Oil & Gas Co.	....	May 10, 28	24,100	8	6	6½	— 1¼

*New high. †New low. ††Also extra—S. O. New Jersey 25c. Total sales 600,830

Pittsburgh Stock Exchange

Transactions Week Ended Aug. 19, 1932

	Sales	High	Low	Last	Change Over Week
Ark. Nat. Gas. ..	243	2¼	2	2¼	+1¼
†Col. Gas & Elec.	2,713	15½	12¼	14½	+1
Devonian Oil	320	8½	8	8	— ⅞
†Lone Star Gas ..	12,597	8	7	7½	— ¼
‡ do pfd	33	65	65	65	0
Plymouth Oil	615	10	9¼	9¾	0
Shamrock Oil & Gas	300	2	1¾	2	+ ¼
‡Standard Oil of N. J.....	205	35	31½	32⅞	—1¼
‡West. Pub. Serv.	1,963	5¼	5	5¼	0

†Payable in new preferred. ‡Unlisted.

Hancock's Net Profit Gains

LOS ANGELES, Aug. 19.—Hancock Oil Co. has reported net profit of $180,274 for the fiscal year ended June 30, 1932. In the preceding year net profit was $90,637. The average net per $25 par share the last fiscal year was 80 cents. In the preceding year it was 39 cents.

Joins Advertising Agency

CHICAGO, Aug. 22.—J. P. Paulson, formerly director of sales promotion for the Willhelm Lubrication Co., St. Paul, Minn., and of the North American Lubrication Co., Ltd., of Canada, has joined the staff of Roche, Williams & Cunnyngham, Inc., Chicago.

New York Bonds

Week Ending Aug. 19

	High	Low	Last	Change
Atlantic Refg. deb. 5s	100	99¾	100	0
Cal. Pet. 5s	90	89½	89½	+ ½
Cal. Pet. 5½s	91½	91½	91½	+1½
General Pet. 5s	102	101⅛	102	+ ⅞
Humble Oil & Refg. 5s	103	101⅝	103	+1½
Pan Amer. Pet. of Calif. 6s	30½	28	30	+1¾
Pan Amer. Pet. of Calif. 6s ctfs	30	26	30	+2½
Phillips Pet. 5¼s	78	74¼	76¼	+1¼
Pure Oil 5½s	83¾	80¾	83¾	+2¼
Pure Oil 5½s	81¼	78	81	+3
Richfield Oil of Calif. 6s	26	25	25	— ½
Shell Union Oil 5s	83¾	83	83⅞	+ ⅞
Shell Union Oil 5s w. war.	84	83	84	+7
Sinclair Con. Oil 7s	96¾	95½	96⅛	+ ½
Sinclair Con. Oil 6½s	94	92	93	+1
Sinclair Con Crude 5½s	102½	102	102	— ¼
Sinclair Pipeline	100½	99	100½	+ ½
Skelly Oil 5½s	72½	69¾	72	+2
S. O. N. J. 5s	102¾	102¼	102⅝	+ ¼
S. O. N. Y. 4½s	95	93½	95	+1½
Union Oil of Calif. 6s A	100½	100½	100½	+2
Union Oil of Calif. 5s C	95	95	95	0
Union Oil of Calif. 5s war.	86	81	86	+6
Warner-Quinlan 6s	24	23⅛	23⅛	+1⅛
White Eagle Oil 5½s	103	102¼	102½	—0

Tank Wagon Price Changes

(Continued from page 69)

Naphtha Prices

	Oleum Spirits	V.M.&P. Naphtha	Cleaner Naphtha
Chicago	11.7	13.7	15.2
Detroit	14.5	16	16.8
Kansas City	†13	†14.5	†15.3
Milwaukee	*17.5	*19	*19.8
Minneapolis	**17.8	**19.3	**20.1
St. Louis	12.7	14.2	15
New York	...	14	17
Boston	...	17	17
Philadelphia	...	15	....

*Includes 4c state tax. †Includes 1c city tax.
**Includes 3c state tax.

Petroleum Spirits (Solvent)

Tank Cars (F.o.b. refinery or seaboard terminal)	
New York Harbor	9.50
Philadelphia district	9.50
Providence	9.50
Tank Wagon or Steel Barrels	
New York City	14
Syracuse	17
Rochester	15
Buffalo (net price)	14
Providence	16
Boston	18
Bridgeport	16
Newark	14
Philadelphia	15
Lancaster	17–18
Altoona	17–18
Baltimore	16

Note: 2c off above t.w. prices to large buyers in some instances

French Independents Sign Soviet Oil Contract

LONDON — The French Petrofina Society has announced that Michael Ostrovsky, manager of the Russian Naphtha Products Society, and Leon Wenger, manager of the Petrofina Co., recently signed a contract in connection with a syndicate representing nine independent French petroleum refinery companies, by the terms of which the Russian company will hold the sole right of supplying Russian crude oil and gasoline to the French companies during the year 1932-37, inclusive.

The contract involves the supply of 500,000 tons of crude oil and an unspecified amount of gasoline a year. The parties undertake not to cede any part of the advantages comprised in the contracts to third parties without the mutual consent of the principals.

Ohio Petroleum Club Hires Field Representative

AKRON, O.—The Tri-County Petroleum Club which is composed of oil marketers of Summit, Stark, Wayne and Medina counties in spite of its name, has a salaried field agent, B. F. Connelly. His work is to obtain closer observance of the code of marketing practices and check any unethical practices in the four counties. He is to report infractions to the state code committee.

Mr. Connelly has been in this work some time but his activities were financed by one company, the Allegheny-Arrow Oil Co. of Canton. From Aug. 1 his salary and expenses will be borne by a majority of the marketers of the territory, being prorated on a gasoline gallonage basis.

Marketers selling up to 30,000 gallons a month will pay $5 a month; those selling 30,000 to 100,000 gallons $10 a month; those selling 100,000 to 150,000 gallons $15 a month, and those selling more than 150,000 gallons a month $25. Assessments are to be paid quarterly in advance to the treasure of the Tri-County club. Rate of assessments are to be determined quarterly by a committee.

The Tri-County club will hold an outing Aug. 25 at the Congress Lake club between Akron and Canton.

Receiver Appointed

TULSA, Aug. 20.—The Scotch Oil Co., sued by the Oklahoma Tax Commission for delinquent gasoline tax payments amounting to over $2,000, has been placed temporarily in the hands of a receiver by Judge Hurst of Pawnee. The court directed the receiver to buy only "tax paid" gasoline.

THE OIL INDUSTRY EXCHANGE

Positions Wanted

EXPERIENCED OIL ADVERTISING MAN with unusually valuable background in marketing, wants a new tough job. Perhaps he can fill that link in your staff. Young enough to be ambitious; sufficient age for a level head. Let him sell himself to you. Address Box 911.

EXPERT LUBRICATING MAN with many years sales experience and wide acquaintance, both jobbing and retail trade—capable managing branch—desires connection with headquarters in St. Louis preferred. Address Box 909.

LUBRICANT TECHNOLOGIST, Ten years lube refining, compounding, grease manufacture and research laboratory, executive capacity. Desire employment with sales technical staff. Thorough knowledge of lubricants and their application to various temperature pressure and speed conditions. Address Box 910.

PETROLEUM GEOLOGIST, University education. Also holds transport pilot's license—photographic experience—now flying. A-1 references. Desires position with petroleum company. Write—Petroleum Geologist, P. O. Box 627, Mankato, Minnesota.

Situations Open

CHEMIST, CHEMICAL ENGINEER OR PLANT SUPERINTENDENT wanted to take charge of small plant in the Pennsylvania field manufacturing petrolatums and specialties. Give full details, including age, experience, salary, etc. Address Box 908.

Miscellaneous

WHAT IT COSTS

"For Sale," "Wanted to Buy," "Help Wanted," "Business Opportunities."

"Miscellaneous" classifications, set in type this size without border—10 cents a word. Minimum charge, $3.00.

"Position Wanted" — 5 cents a word. Minimum charge $1.00.

Advertisements set in special type or with border—$4.00 per column inch.

Copy must reach us not later than Friday preceding date of issue.

All advertisements carried on this page are payable in advance.

Business Opportunities

OLD ESTABLISHED WHOLESALE—RETAIL, with chain Filling Stations, two bulk plants. Party with capital or good security as partner or purchase out-right. Allen Oil Company, 22 Bennett, Nashua, N. H.

Professional Services

KNOCK RATING TESTS
on motor fuel, using standard methods and standard equipment. Special prices for monthly contract.
The Detroit Testing Laboratories,
554 Bagley Avenue,
Detroit, Mich.

BURRELL-MASE ENGINEERING CO.
Design, Construction, Valuation, Test, Reports
Law & Finance Bldg.
Pittsburgh, Pa.

ANTI KNOCK VALUE DETERMINATIONS
The Gray Industrial Laboratories
Chemists and Engineers
Specialists on Petroleum Products
961-976 Frelinghuysen Ave.,
NEWARK, N. J.
Telephone Terrace 3-4020

L. G. Huntley **J. R. Wylie, Jr.**
William J. Millard
HUNTLEY & HUNTLEY
PETROLEUM GEOLOGISTS AND ENGINEERS
Grant Building **PITTSBURGH, PA.**

ROYAL E. BURNHAM
Attorney-At-Law
Patent and Trade Mark Practice Exclusively
Continental Trust Building
Washington, D. C.

Pan American Offer Extended

NEW YORK, Aug. 19.—Standard Oil Co. (N. J.) has extended to Sept. 30 its offer to acquire minority shares in Pan American Foreign Corp. Under its exchange offer of July 14 Standard will pay $14.64 and 0.5435 share of Standard stock for each share of Pan American Foreign Class A or Class B.

NEW YORK, Aug. 19.—Cities Service Co. reports surplus of $549,854 available for common stock and reserves for July, compared with $621,618 for July, 1931. For the 12 months ended July 31, 1932, surplus available for common stock and reserves was $15,445,530, compared with $23,965,029 the preceding 12 months.

Four States Convention Set for Oct. 25-27

TULSA, Aug. 20.—The seventh annual four-state convention of jobbers in Iowa, Missouri, Kansas and Nebraska, will be held at the Hotel President, Kansas City, October 25, 26 and 27. The Kansas Oil Men's Club will again furnish the entertainment.

Subjects to be discussed include: "Perplexing Petroleum Problems"; "Creative Selling in the Oil Industry"; "Value of Co-operation"; "The Business of Getting Together," and "The Oil Industry's Tax Problems." Speakers will be announced at a later date.

Standard Oil Stocks on New York Curb Market

1931 High	1931 Low	1932 High	1932 Low	Shares Issued	Par Value	Company	Div. Rate Period	Last Div. Paid	Transactions Week Ended Aug. 20 Sales Shares	High	Low	Last	Week's Change
16	6	6¼	6	40,000	$25	Borne Scrymser Co.	....	Oct. 15, 30	.....	....	....	....	....
56	30	35	17¼	200,000	50	Buckeye Pipe Line Co.	$1Q	June 15, 32	400	25	24¼	24¼	+ 1½
129½	75	90	55	120,000	25	Chesebrough Mfg. Co.	††$1Q	June 30, 32	.....	....	....	....	....
2½	1⅛	2¾	1¼	5,977,873	N.P.	Creole Petroleum Co.	....	....	9,600	3⅛	2⅝	3⅛	+ ⅜
36	19	32	18	50,000	$100	Eureka Pipe Line Co.	$1Q	Aug. 1, 32	50	24¼	24¼	24¼	+ ¾
72	44¼	51½	36⅝	2,974,645	25	Humble Oil & Refg. Co.	50cQ	July 1, 32	400	50⅛	48	48	— 1
18⅛	7⅜	10	6¼	26,557,496	N.P.	Imperial Oil Corp. coup.	12½cQ	June 1, 32	1,800	9¼	8¾	9	0
18	7⅛	9⅜	6¾	.....	N.P.	do registered.	12½cQ	June 1, 32	100	8½	8½	8½	— ⅝
21⅜	5½	7½	2⅞	300,000	$10	Indiana Pipe Line Co.	10cS.A.	May 15, 32	.....	....	....	....	....
15½	7⅜	11⅜	8	14,247,088	N.P.	International Petroleum Co.	25cQ	June 15, 32	7,500	*11⅜	10½	10½	0
17½	5	10½	6	509,000	$12.50	National Transit Co.	25cQ	June 15, 32	400	8½	8	8½	+ ½
14½	5⅞	5½	2¼	100,000	5	New York Transit Co.	10cQ	Apr. 15, 32	100	4⅞	4½	4½	— ⅜
35½	20	4½	3	120,000	10	Northern Pipe Line Co.	25cA	July 1, 32	.....	....	....	....	....
102⅞	67½	78	60	580,668	100	Ohio Oil Co. pfd.	$1.50Q	June 15, 32	100	75	75	75	— 3
15½	5½	7¼	4	400,000	25	Penn Mex. Fuel Co.	50c	May 25, 32	100	*7¼	7¼	7¼	— ¾
17	7	10	6	100,000	10	Southern Pipe Line Co.	35cQ	June 1, 32	.....	....	....	....	....
23⅞	9¼	16½	9⅝	1,200,000	25	South Penn Oil Co.	25cQ	June 30, 32	1,000	14⅜	14	14½	— ⅛
42½	25	37	27	35,000	50	South West Pa. Pipe Lines.	$1Q	July 1, 32	.....	....	....	....	....
38½	13½	24	13⅛	16,996,596	25	S. O. Indiana.	25cQ	June 15, 32	23,100	24¼	22¾	24	+ 1⅛
23⅝	12⅛	15⅞	8⅞	2,606,983	10	S. O. Kentucky.	30cQ	June 30, 32	2,500	15⅜	12	12⅝	— ½
36½	16	19	10¼	190,822	25	S. O. Nebraska.	25cQ	June 20, 32	200	15½	15½	15½	+ ½
62½	23	30¼	15½	120,000	25	S. O. Ohio.	62½cQ	July 1, 32	450	27	25	25	— 1¼
115¼	78½	87	78½	34,158	100	do 5% pfd.	$1.25Q	July 15, 32	50	*87	87	87	+ 2
10	1	2	1¾	.....	25	Swan Finch Oil Corp.	....	Jan. 15, 32	.....	....	....	....	....

*New high. †New low. ††Also extra—Chesebrough 50c.

Oil and Royalty Stocks on New York Curb

1931 High	1931 Low	1932 High	1932 Low	Par Value	Company	Transactions Week Ended Aug. 20 Sales Shares	High	Low	Last	Week's Change
1⅜	¼	⅝	¼	N.P.	American Maracaibo...	.....	....	....	....	....
6½	1⅛	2¾	⅝	N.P.	Arkansas Nat. Gas....	.....	....	....	....	....
6¾	1⅞	2⅜	½	N.P.	do A.	4,800	2¼	2	2	— ¼
7	3⅞	5½	1½	$10	do pfd.	1,200	4¼	3⅜	4¼	+ ¼
1	½	⅛	⅛	N.P.	Atlantic Lobos.	.....	....	....	....	....
3⅛	¼	⅝	½	$50	do pfd.	.....	....	....	....	....
16⅞	6¼	9¾	7	N.P.	British Amer. Oil coup.	.....	....	....	....	....
16¾	10	..	..	N.P.	do registered.	.....	....	....	....	....
2⅜	⅛	¾	¼	$¼	Carib Syndicate.	200	⅜	⅜	⅜	+ ⅛
20¾	5	6⅞	1¼	N.P.	Cities Service.	116,500	5¾	4⅞	5¼	+ ¼
84⅝	35⅝	53⅝	10	$100	do pfd.	1,600	27¼	25	27⅛	+ 1¾
7½	4	4½	1	$10	do pref. B.	900	2½	2¼	2½	0
84	41½	45	9	100	do pref. BB.	30	23	21	21	— 6
3⅛	¼	1⅜	¼	N.P.	Colon Oil Corp.	1,100	1⅛	1	1	0
7⅛	1	1⅛	½	N.P.	Columbia Oil & Gas vtc.	1,800	1⅜	1¼	1¼	— ⅛
2¾	1	1⅝	1	$1	Consolidated Royalty..	.....	....	....	....	....
3¾	⅝	1	¼	N.P.	Cosden Oil.	1,900	1⅝	⅞	1⅝	+ ⅞
15	1	3	2	$100	do pfd.	100	3½	3½	3½	+ ½
⅝	⅛	⅝	⅛	N.P.	Crown Central Pet.	2,900	½	½	½	0
5	1¾	4	1⅝	N.P.	Darby Petroleum.	900	5⅜	4¼	5¼	+ 1¼
6	1½	2⅛	1	N.P.	Derby Oil & Ref'g.	200	2	1¾	2	0
40⅛	25	24½	10½	N.P.	do pfd.	.....	....	....	....	....
76	25⅜	41	23	$25	Gulf Oil Corp.	4,900	39¼	35½	38	+ 2
9¾	9¾	..	..	N.P.	Honolulu Oil Corp.	.....	....	....	....	....
16⅞	4¼	4½	1⅛	N.P.	Indian Ter. Ill'g. Oil A.	100	4	4	4	+ ⅛
16⅞	5	4½	2½	N.P.	do B.	.....	....	....	....	....
⅝	⅛	¼	⅛	$5	Intercontinental Pet..	3,400	⅛	⅛	⅛	— ⅛
1⅞	¼	1	⅝	N.P.	Kirby Petroleum.	900	⅝	½	½	— ½
1½	¼	⅝	⅛	$25	Leonard Oil Devel.	500	⅜	⅜	7/16	— 1/16
6¾	1½	3⅛	⅞	N.P.	Lion Oil Refining.	.....	....	....	....	....
29	5½	9¾	3½	N.P.	Lone Star Gas.	3,100	7⅞	7⅜	7¾	+ ¼
½	⅛	..	..	$25	MacMillan Petroleum	.....	....	....	....	....
1¾	⅛	½	⅛	1	Magdalena Syndicate..	8,400	1/16	1/16	1/16	0
5	1⅞	6¼	3¾	N.P.	Margay Oil Co.	.....	....	....	....	....
4¾	1½	3	1½	N.P.	Mexico-Ohio Oil.	100	*3	2	3	+ 1½
8⅛	1¼	2	½	N.P.	Michigan Gas & Oil.	100	⅞	⅞	⅞	— ⅛
4⅝	⅞	2⅛	⅛	N.P.	Mid. States Pet. A v.t.c.	100	1⅛	1⅛	1⅛	— ⅛
1⅛	⅛	⅝	⅛	N.P.	do B v.t.c.	600	½	½	½	0
11	¾	2⅛	⅛	$5	Missouri-Kansas P.L..	1,200	1/16	½	1/16	+ 1/16
⅛	⅛	⅛	⅛	1	do B v.t.c.	.....	....	....	....	....
⅛	⅛	⅛	⅛	1	Mountain & Gulf.	.....	....	....	....	....
5⅞	2	4⅜	2⅛	10	Mountain Producers...	800	4¼	4⅛	4¼	— ⅛
26½	9¾	13½	8	N.P.	National Fuel Gas.	2,800	13⅞	12⅞	13½	+ 1
1⅛	½	¾	⅝	$5	New Bradford Oil.	.....	....	....	....	....
2⅛	¾	..	..	10	New England Fuel.	.....	....	....	....	....
6½	6½	..	..	10	North Amer. Oil.	.....	....	....	....	....
3¼	1⅛	1	⅝	N.P.	North Central Texas..	.....	....	....	....	....
2⅛	¼	⅝	⅛	N.P.	North European.	2,300	⅜	¼	⅜	+ ⅛
5	⅝	4½	¾	N.P.	Oil Stocks, Ltd. A.	300	4⅛	4	4⅛	— ⅜
4⅛	2	..	..	N.P.	do B.	.....	....	....	....	....
15	2⅞	6¼	3⅛	N.P.	Pacific Western Oil.	3,600	5¼	4¼	5¼	+ ¾
⅛	⅛	⅛	⅛	N.P.	Pandem Oil.	.....	....	....	....	....
2	⅝	⅝	⅛	N.P.	Pantepec of Venezuela	600	½	½	½	— ⅛
19	6	10⅞	6	$5	Plymouth Oil.	400	9¾	9¼	9¼	+ ¼
4⅛	⅛	⅝	⅛	N.P.	Producers Royalty.	100	5/16	5/16	5/16	+ 1/16
83⅛	49⅞	53¾	40	$100	Pure Oil 6% pfd.	50	*53¾	52	53⅜	+ ¼
2⅛	⅝	1	½	N.P.	Red Bank Oil.	.....	....	....	....	....
2⅛	⅛	⅛	⅛	N.P.	Reiter-Foster Oil.	.....	....	....	....	....
11	⅛	1	¼	$25	Richfield Oil pfd.	100	½	½	½	— ⅜
6½	1⅞	4¼	1¼	N.P.	Root Refining pfd.	600	*4¼	4	4¼	+ ¼
3⅞	½	½	½	$10	Royalty Corp. pfd.	.....	....	....	....	....
3	⅝	1¼	⅝	N.P.	Ryan Consolidated.	.....	....	....	....	....
1⅜	⅛	½	⅛	$10	Salt Creek Consol.	.....	....	....	....	....
7⅝	2¾	5⅛	2⅞	10	Salt Creek Prod.	600	5	4⅞	5	+ ⅛
7	1	1¼	½	25	Shreve. El Dorado P.L.	.....	....	....	....	....
7½	3½	4⅜	2⅞	N.P.	Southland Royalty.	400	*4⅜	4	4	— ⅛
5¼	¼	⅝	¼	$5	Sunray Oil.	1,000	½	7/16	7/16	— 1/16
12⅞	2½	8	4½	N.P.	Texon Oil & Land.	500	7	7	7	0
24½	9½	12	7½	$25	Union Oil Associates.	.....	....	....	....	....
1⅞	¼	½	⅛	5	Venezuela Petroleum..	.....	....	....	....	....
3½	1⅛	2	1¼	1	Woodley Petroleum.	.....	....	....	....	....
2¼	¼	⅝	⅛	N.P.	Y Oil & Gas.	300	⅜	½	½	0

*New high. †New low.

Oil Dividends

Declared Last Week

Company and Period	Amount	Stock of Record Payable
Chesebrough Mfg. q.	$1	Sept. 30 Sept. 8
do extra	50c	Sept. 30 Sept. 8
Pure Oil 5¼% pfd. q.	$1.25	Oct. 1 Sept. 9
do 6% pfd. q.	$1.50	Oct. 1 Sept. 9
do 8% pfd. q.	$2	Oct. 1 Sept. 9

Awaiting Payment

Aug. 20, 1932

Company and Period	Amount	Stock of Record Payable
Atlantic Refining q.	25c	Sept. 15 Aug. 22
Buckeye Pipe Line q.	75c	Sept. 15 Aug. 19
Canadian Oil Co. pfd. q.	$2	Oct. 1 Sept. 20
Consolidated Oil pfd. q.	$2	Aug. 15 Aug. 1
Hancock Oil A & B q.	10c	Sept. 1 Aug. 15
Imperial Oil q.	12½c	Sept. 1 Aug. 15
McColl Frontenac q.	15c	Sept. 15 Aug. 15
Ohio Oil q.	20c	Sept. 15 Aug. 20
do pfd. q.	$1.50	Sept. 15 Sept. 6
Pan Amer. P. & T.	*20c	Sept. 15 Aug. 16
do B.	20c	Sept. 15 Aug. 16
Socony-Vacuum Corp. q.	20c	Sept. 15 Aug. 19
Southern Pipe Line q.	15c	Sept. 1 Aug. 15
S. O. California q.	50c	Sept. 15 Aug. 15
S. O. Indiana q.	25c	Sept. 15 Aug. 15
S. O. Nebraska q.	25c	Sept. 20 Aug. 27
S. O. New Jersey q.	25c	Sept. 15 Aug. 16
do extra	25c	Sept. 15 Aug. 16
Sun Oil q.	25c	Sept. 15 Aug. 25
do pfd. q.	$1.50	Sept. 1 Aug. 10
The Texas Corp. q.	25c	Oct. 1 Sept. 2
Union Tank Car q.	35c	Sept. 1 Aug. 15

*20 cent dividend represents adjustment in date of payment. Quarterly rate is 25c.

Paid Last Week

Company and Period	Amount	Date Paid
Canadian Oil q.	25c	Aug. 15
Tide Water Oil pfd. q.	$1.25	Aug. 15

New York Curb Bonds

Week Ending Aug. 19

	High	Low	Last	Change
Beacon Oil 6s '36.	95	95	95	+1⅜
Cities Serv. 5s '50.	46½	42⅝	45¾	+2¾
Cities Serv. 5s '66.	46	43⅞	44⅜	+1⅜
Cities Serv. G. 5½s '42.	53⅞	48½	53⅞	+4⅜
Cities Serv. G. P. 6s '43.	66	64⅛	64⅞	—⅞
Cont. Oil 5½s '37.	95¼	92	94	+1¾
Empire O & R 5½s '42.	51	48½	51	+2⅜
Gulf Oil 5s '37.	100½	99½	100½	+ ½
Gulf Oil 5s '47.	96½	95½	96½	+1
Sun Oil 5½s '39.	98¾	96	98½	+2
Sun Oil 5s '34.	100	98	100	+2

NEW PATENTS

Prepared by R. E. Burnham, patent and trade-mark attorney, 1343 H Street, N. W., Washington, D. C., from whom copies may be obtained at the rate of 25c each. State number of patent and name of inventor when ordering.

August 2, 1932

REFINING

Process of converting heavy hydrocarbons—Philip S. Danner, Point Richmond, Calif., assignor to Standard Oil Co. (Calif.) Filed Apr. 30, 1925. No. 1,869,799.

Process and apparatus for heating oil—John C. Black, Destrehan, La., assignor to Gasoline Products Co., Wilmington, Del. Filed Oct. 20, 1926. No. 1,869,838.

Surge pump (for hot oil)—Vanderveer Voorhees, Hammond, Ind., assignor to Standard Oil Co. (Ind.) Filed Nov. 9, 1929. No. 1,869,874.

Method of making motor fuel—William N. Davis, Oakland, and William H. Hampton, Berkeley, Calif., assignors to Standard Oil Co. (Calif.) Filed Nov. 30, 1927. No. 1,869,885.

Process and apparatus for converting hydrocarbons—Alfred Oberle, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed July 2, 1923. No. 1,869,978.

Process for treating petroleum oil—Lyman C. Huff, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed Jan. 9, 1926. No. 1,870,049.

Refining of petroleum oils—Jacque C. Morrell, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed Dec. 9, 1925. No. 1,870,063.

Process of cracking oil—Lester Kirschbraun, Leonia, N. J., assignor to Universal Oil Products Co., Chicago, Ill. Filed Sept. 10, 1920. No. 1,870,178.

Method of and apparatus for distillation of hydrocarbon oils—James H. Grahame, Port Arthur, Tex., assignor to Texas Co., New York, N. Y. Filed Apr. 24, 1930. No. 1,870,193.

PRODUCTION

Control head for oil wells—Charles L. Dean, Denver, Colo., and Lewis D. Hilton, San Antonio, Tex. Filed Jan. 21, 1929. No. 1,869,739.

Tubing anchor—Theodore L. Lynch, Oxnard, Calif. Filed Apr. 15, 1929. No 1,869,759.

Self-guiding drilling-bit—William P. Cole, Long Beach, Calif. Filed July 21, 1930. No. 1,869,843.

Sucker-rod-fishing tool—Walter A. O'Bannon, Tulsa., Okla. Filed Mar. 9, 1931. No. 1,869,861.

Well-drill—Donald C. Grove and Joseph C. Burns, Big Springs, Tex. Filed May 25, 1929. No. 1,869,892.

Pump—Ira J. Parker, Coffeyville, Kans. Filed Mar. 5, 1930. No. 1,870,137.

MISCELLANEOUS

Dispensing apparatus—Robert J. Jauch and Harry L. Mitchell, Fort Wayne, Ind., assignors to Wayne Co., same place. Filed Oct. 9, 1929. No. 1,869,375.

Motor fuel—Vernon Lantz, Berkeley, Calif., assignor to Standard Oil Co. (Calif.) Filed Sept. 6, 1927. No. 1,869,486.

Underground storage-tank installation—Edward S. Cornell Jr., Watertown, Conn., assignor to Chase Companies, same place. Filed Oct. 10, 1930. No. 1,869,669.

Lubricating oil—Edward N. Roberts, Casper, Wyo., assignor to Standard Oil Co. (Ind.) Filed Apr. 23, 1928. No. 1,869,799.

Lubricating oil—Sterling H. Diggs, Casper, Wyo., assignor to Standard Oil Co. (Ind.) Filed Apr. 23, 1928. No. 1,869,800.

Low cold test lubricating oil—Frederick W. Sullivan Jr., Whiting, Ind., and William J. McGill, Wood River, Ill., assignors to Standard Oil Co. (Ind.) Filed Dec. 29, 1928. No. 1,870,074.

Liquid-dispensing apparatus—Harry E. Dobson, New York, N. Y. Filed Mar. 2, 1931. No. 1,870,103.

Gasoline-meter—Harry G. Weymouth and Earl M. Kreidler, Pittsburgh, Pa., assignors to Pittsburgh Equitable Meter Co., same place. Filed Apr. 3, 1929. No. 1,870,155.

August 9, 1932

REFINING

Method and apparatus for hydrogenation and distillation of low-sulphur petroleum oils. Edgar M. Clark, New York, N. Y., assignor to Standard I. G. Co. Filed Jan. 26, 1928. No. 1,870,792.

Process for partial oxidation of gaseous hydrocarbons. Waren K. Lewis, Newton, Mass., assignor to Standard Oil Development Co. Filed Mar. 21, 1928. No. 1,870,816.

Process of separating mixtures of substances only partially miscible. Warren K. Lewis, Newton, Mass., assignor to Standard Oil Development Co. Filed Apr. 25, 1929. No. 1,870,854.

Method and means for operating cracking-oil installations. Eric W. Luster, Westfield, N. J., assignor to Standard Oil Development Co. Filed Sept. 25, 1929. No. 1,870,855.

Distillation of hydrocarbon oils. Thomas S. Cooke, New York, N. Y., and Oswald C. Brewster, Casper, Wyo., assignors to Standard Oil Co. (Ind.) Filed July 14, 1928. No. 1,871,114.

Art of distillation of hydrocarbon oils. Oswald C. Brewster, Casper Wyo., assignor to Standard Oil Co. (Ind.) Filed June 8, 1925. No. 1,371,148.

Recovery of wax from oils. George D. Graves, Casper, Wyo., assignor to Standard Oil Co. (Ind.) Filed Aug. 20, 1926. No. 1,871,172.

Process of treating hydrocarbons. Walter M. Cross, Kansas City, Mo., assignor to Gasoline Products Co., Wilmington, Del. Filed Oct. 6, 1924. No. 1,871,431.

PRODUCTION

Method for cleaning oil wells. Edward M. Adams, Lexington, Ky., and Wilmer C. Gangloff and Grace G. Spencer, Cincinnati, Ohio, assignors to Drackett Chemical Co., Cincinnati. Filed Mar. 16, 1932. No. 1,870,320.

Drilling-bit. Elwin W. Forrow, Los Angeles, Calif., assignor to Byron Jackson Co., same place. Filed Apr. 21, 1928. No. 1,870,563.

ADVERTISERS IN THIS ISSUE

This index is published as a convenience to the reader. Every care is taken to make it accurate, but National Petroleum News assumes no responsibility for errors or omissions.

Alemite Corp. 67
American Flange & Mfg. Co. 8
Anderson-Prichard Oil Corp. 72
Art Metal Construction Co. 6-7

Barnsdall Refiners, Inc. 4
Battenfeld Grease & Oil Corp. 52
Bethlehem Steel Co. 63
Bowser & Co., Inc., S. F. 47
Buffalo Meter Co. 38

Champion Pneumatic Machy. Co. 46
Chicago Bridge & Iron Works 28
Cities Service Co. 75
Classified Advertising 77
Col-Tex Refg. Co. 72
Conewango Refg. Co. 61
Cushing Refg. & Gasoline Co. 2

Erie Meter Systems, Inc. ..... Fourth Cover

General Electric Co. 80
Globe Oil & Refg. Co. ..... Third Cover
Gulf Refg. Co. 63

Humble Oil & Refg. Co. 42

International Harvester Co. 41

Kellogg Co., M. W. 31

National Pumps Corp. ..... Second Cover
National Refg. Co. 51
Neptune Meter Co. 1

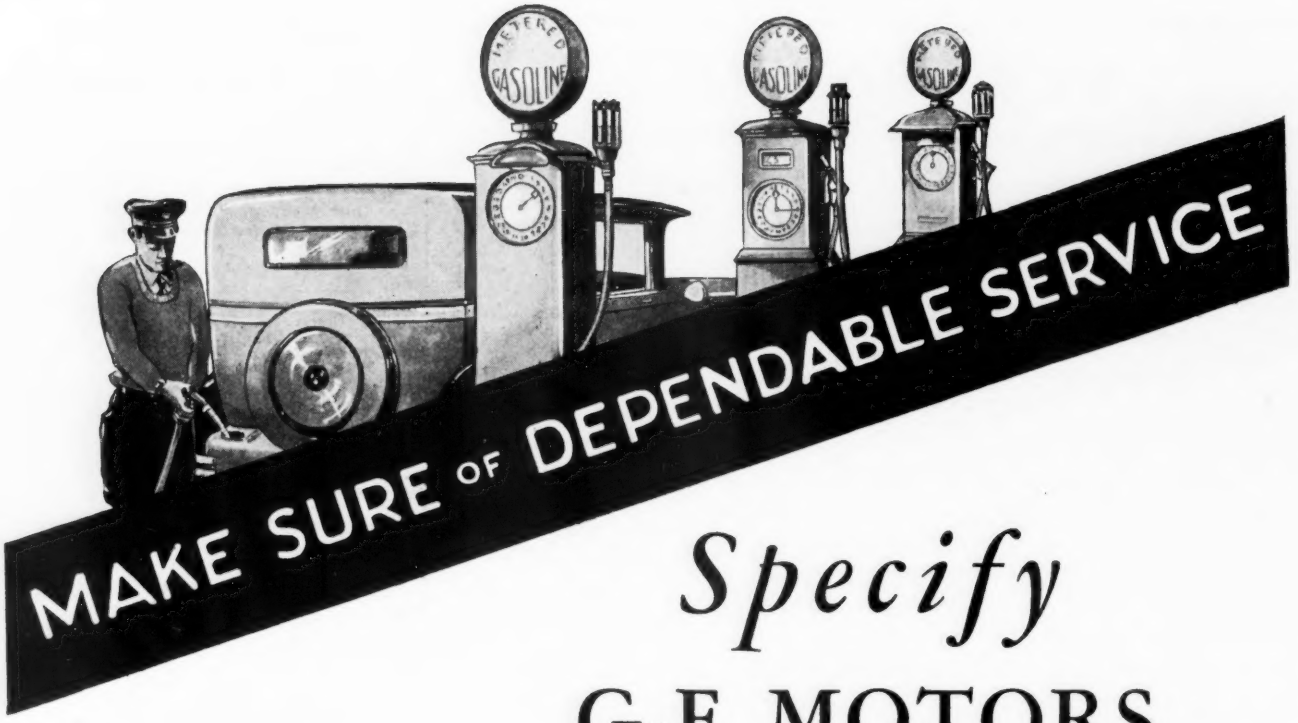
Pennzoil Co. 5
Perfection Stove Co. 3
Pyroil Co. 65

Schrader's Son, Inc., A. 65
Shell-Union Oil Corp. 45
Skelly Oil Co. 48

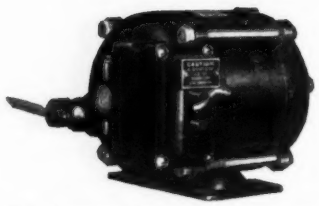
Texas Pacific Coal & Oil Co. 70
Tide Water Oil Sales Corp. 24
Truscon Steel Co. 51

Universal Oil Products Co. 35

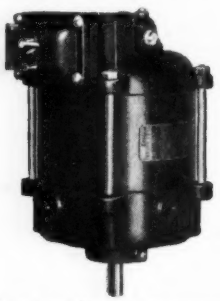
Water Mining Corp. 26



Specify G-E MOTORS



G-E fractional-horsepower motor, for horizontal operation, with built-in thermal-overload protection and line switch



G-E fractional-horsepower motor, for vertical operation, with built-in thermal-overload protection and line switch

These new G-E fractional-horsepower explosion-proof motors are tested and listed by the Underwriters' Laboratories; each motor bears the Underwriters' label indicating its suitability for use in locations where inflammable or volatile liquids, gases, or mixtures of petroleum derivatives are present. They are available for either horizontal or vertical mounting, with line switch and thermal-overload built-in, or furnished separately from the motor for mounting elsewhere in the dispenser cabinet.

HURRY . . . hurry . . . hurry! There's a constant, breathless rush of traffic on state and national highways all day and every day. Stops for oil and gas are made in much the same manner as a racing car flashes into the "pit" for *immediate* servicing. One of your pumps out of service can mean the difference between impatient "let's-go-elsewhere" customers and satisfying profits.

For dependable service, specify G-E fractional-horsepower motors for your gasoline dispensers. These reliable power units are carefully designed and built to stay on the job. And wherever you place your pumps — out on a western turnpike, in the downtown section of an eastern metropolis, up along the Canadian border, or down along the Florida coast, anywhere — you are never beyond the immediate reach of G-E motor service. That is another reason why a G-E motor is always a sound investment. General Electric Company, Fractional Horsepower Motor Section, Fort Wayne, Indiana.

G-E Service is as near as your telephone

210-196

GENERAL ELECTRIC